Clinical Lecture

ON

A CASE OF TAILOR'S CRAMP, AND OTHER TROUBLES AFFECTING THE FUNCTIONS OF THE HAND.

By G. V. POORE, M.D., F.R.C.P.,

PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; PROFESSOR OF CLINICAL MEDICINE, ETC.

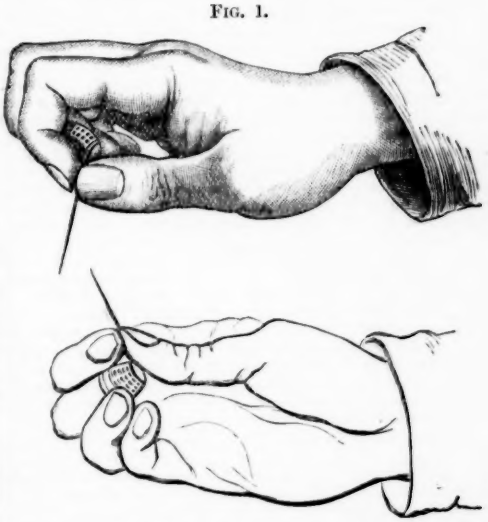
A case of True Tailor's Cramp.—A doubtful case of "Gold-beater's Cramp."—A case of Mercurial Tremor, and a case of Brachial Monoplegia complicated by Rheumatism.

GENTLEMEN,—There are many diseases which are caused by the occupation of the patient. These might be divided into at least three classes—viz: (1) *Irritant*, in which the mechanical or chemical irritation of the materials with which the workman is brought in contact is the cause of trouble. Examples are found in the eczema of the baker or grocer, or the phthisis of the stonemason or knife-grinder. (2) *Toxic*, in which some poisonous matter is absorbed into the blood. Such are chronic mercurialism and the lead poisoning of plumbers and painters. (3) *Fatigue diseases*, in which the constant repetition of some muscular movement which constitutes the very essence of the trade or handicraft produces an inability to perform such movement. The most common example of this last class is "writer's cramp."

CASE 1.—The first case to which I wish to direct your attention to-day belongs to the class of fatigue diseases, and may be shortly spoken of as a case of "tailor's cramp." The patient is a tailor aged fifty-seven. He has lived in London for the last forty years. He is well built and temperate, and is free from disease other than that for which he seeks advice, and there are no facts in the family or personal history which throw any light upon his condition. About a year ago the patient began to experience a "weakness" of the right thumb and forefinger, which made it difficult for him to hold his needle, and this difficulty increased until about eight weeks ago, when he was obliged to give up work. The patient is here and we will ask him to demonstrate his trouble; and it is quite characteristic of this class of malady that there is very little to see. We talk of writer's cramp when there is no visible cramp or spasm, of writer's palsy when there is no obvious paralysis, and you will observe in this case that after a few stitches the needle eludes the grasp of our tailor, and it is rather difficult to say why. The needle is held between the thumb and forefinger. The metacarpal bone of the thumb is abducted and partly flexed on the palm, the near phalanx is slightly flexed on the metacarpal bone and slightly rotated towards the radial side, while the far phalanx is fully extended, so that the phalangeal knuckle makes an approach to a re-entrant angle. (See Fig. 1.) This is well shown in a drawing made for me by Mr. Wells. The needle is held between the pulps of the index finger and thumb, and in order that these points may be in apposition the middle and far phalanges of the index are both slightly flexed, and pressure appears to be maintained by the flexion of the near phalanx. After working for a short time the thumb and forefinger give way, the needle is no longer grasped with sufficient firmness to push it through the fabric, and in this failure the most noticeable fact which an observer can detect is the giving way, as it were, of the phalangeal joint of the thumb, the extension of the far phalanx not being maintained.

We will now proceed to examine the patient to ascertain why the failure takes place, and in order to do this satisfactorily we must have him stripped to the waist. Having done this, we first determine that there is no sign of hemiplegia, however slight. The movements of the tongue and face are normal and symmetrical, the pupils equal and reacting normally, the grasp of the two hands firm and equal, the gait without a trace of limp. There is no sign of any coarse cerebral lesion, whether old or recent. It is important to determine this fact, because it often happens that the failure to execute some delicate manipulation constitutes the one lingering sign of an otherwise scarcely noticeable hemiplegia. We next look carefully to the movements of the scapula, because any want of firmness in the scapula necessarily entails a corresponding want of firmness and certainty in the use of the hand. We ask the patient to shrug his shoulders, to extend his arms in front of him, to raise his arms above the head, to try to make his elbows meet behind his back, and by this series of movements we ascertain that all the muscles acting on the scapula act normally on the two sides. The movements of the arm and forearm likewise appear normal. There is no wasting of muscles, no change in the knee-jerks, no sign of ataxy in the legs or arms. There is no tremor of the hands or arms, or lower limbs. Asking the patient to stand facing me and to rest his arms upon my shoulder, with the palms uppermost, I cross my own arms, and grasping his elbows, make gentle pressure with my thumbs over the median nerve as it lies to the inner side of the biceps tendon. There is very distinct tenderness on the right side, but not on the left. *The trunk of the right median nerve is distinctly tender.* I find also that there is a very tender spot in front of the right wrist just where the median enters the palm, and a third tender spot in the palm itself at the base of the thenar eminence. There thus appears to be well-marked tenderness over the trunk and branches of the median nerve in the fore-

FIG. 1.



arm and palm. There is no similar tenderness over the musculo-spiral or ulnar nerve. The sensation of the right hand appears to be duller (front and back) than on the left, but this blunting of common sensibility is especially marked in the "median" area of the palm, and you will observe that the patient distinctly states that sensation is far more acute on the ulnar side of the right ring finger than on the radial side. This impairment of sensation is slight in degree, but, if carefully looked for, is perfectly evident. We have so far shown that the right median nerve is tender, and that its sensory functions are impaired. Looking more closely to the hand, we find no wasting of muscle, no impairment in the strength of rapid movements, no enlargement of joints, no creaking about the wrist, no tendo-synovitis, or other trouble interfering with the freedom of movement of the tendons. The muscles of the ball of the right thumb are perhaps harder to the touch than those of the left side, but the difference is not very marked. Proceeding now to test the muscles with faradisation, I ask the patient to sit on a common Windsor chair with the wrists resting on the back of a second chair, upon which I sit astride for the purpose of testing the muscle. One rheophore of the faradising battery is made fast to the nape of the neck in order that the current to reach the hands may pass through equal lengths of the body on either side. The muscles of the hand are then tested with a small rheophore, the skin being well moistened with hot salt-and-water. I

begin with the left hand, taking the muscles singly, and finding what is the least current which will produce a contraction, and I then watch the effect of the same current applied to the corresponding muscle of the right hand.

The result of this investigation is to show a very distinct impairment of irritability of the first dorsal interosseous and the muscles of the thenar eminence on the right side. A current which produces a quick and vigorous contraction on the left side has no appreciable effect on the right. When the strength of the current is increased, the right hand muscles contract, but with less vigour than the corresponding muscles, and, especially in the ball of the thumb, there is a little hesitancy about the contraction, owing apparently to a lengthening of the latent period of stimulation. This difference in irritability was very much more marked a month ago than it is at present, rest and other measures having done much to restore the normal condition of the muscle. Now it is obvious that the muscles in which we are able to demonstrate this impaired irritability are precisely those which are essential for holding the needle; for keeping the needle firm between the pulps of the thumb and index, the muscles of the thenar eminence and the first dorsal interosseous are precisely those which are employed. Duchenne pointed out that the muscles of the ball of the thumb are analogous to the interossei muscles in the fact that their action is to flex the near and extend the far phalanx. The radial head of the short flexor and the abductor pollicis may be regarded as functionally one. These maintain the thumb in the needle position; they are markedly deficient in irritability, and the "giving way" of the phalangeal angle is due mainly to the failure of these muscles to remain contracted. The first dorsal interosseous is similarly deficient in irritability, and there is no doubt that the impaired condition of these muscles as demonstrated by electricity is amply sufficient to account for the "professional impotence" of our tailor. We have also as an interesting fact in this case the well-marked tender spots along the course of the median nerve, the nerve supplying those muscles of the thenar eminence whose loss of irritability is especially well marked, and also the markedly impaired sensibility in the median area of the palm. There is no well-marked tenderness along the course of the ulnar nerve (supplying the first dorsal interosseous) although, be it remembered, there is some dulling of common sensibility in the hand as a whole. Having found that our patient has the muscles which are essential for holding his needle functionally impaired, and also well-marked evidence of impaired functions in one of the nerves supplying those muscles, his condition ceases to be a mystery, because we can put our fingers on the precise anatomical seat of his troubles.

We have made an anatomical diagnosis. Can we go a step further and make a pathological diagnosis? If we could see this patient's median nerve and the muscles which have their irritability impaired should we be able to see anything amiss either with the naked eye or the microscope? The median nerve is tender and the involved muscles are perhaps a little harder than their corresponding muscles of the left limbs. Is the nerve slightly hyperæmic and is there a slight increase of cellular tissue in the muscle? Possibly, but in the absence of any observations it is wiser to say we do not know. The condition is brought about by excessive work and the electrical reactions are those of fatigue, so that we are quite justified in talking of the conditions as one of "chronic fatigue," especially as such a term does not involve any assertion as to the histology of the implicated muscles or nerve.

Next a few words as to treatment, and as this patient has greatly improved since he has been under observation, I will recount what has been done for him. In the first place, he has been ordered to desist from his occupation, rest being the most essential part of the treatment. Rest from the occupation which has brought about the trouble is sufficient. There is no need to put the arm in a sling, as is occasionally done. No harm will result in this case from the use of the arm for all ordinary purposes so long as the fatigue of the thenar muscles and the first dorsal interosseous be not intensified by excessive use of the needle. After rest the next step in treatment is to diminish the tenderness of the nerve trunks, and to this end we placed three blisters over the tender points along the course of the median; as a result of this the tenderness has now almost completely disappeared. My experience of these cases has led me to consider that it is very undesirable to use electricity or massage for the muscles so long as the nerve trunks be tender, and if this be done I believe there is no little risk of making the patient worse rather than better. When, however, any nerve tenderness which may have been present has been removed by blistering, we may have recourse to electricity or massage with a fair chance of benefiting the patient.

The use of electricity is attended by good results in a fair proportion of these cases. The galvanic current must be employed, and not the induced current. The latter produces strong tetanic contractions of the muscles, and is apt to intensify the fatigue which it is sought to allay. It is possible that an occasional application of the faradaic current may do good by quickening the blood and lymph currents in the muscle, but anything like a continued employment of this form of electricity is calculated to do harm. With the continuous galvanic current, used of a strength sufficient to redden the skin and produce a slight movement in the muscles, it is otherwise. The refreshing effect of this current when applied to acutely fatigued muscles is very remarkable. You will remember that I demonstrated this fact a few days ago, when I asked the patient to keep his arm extended at right angles to his body for as long a period as he could; and you will remember that the passage of a galvanic current through the arm just when the fatigue pains became almost too intense to bear, removed the pain, refreshed the muscles, and enabled the patient to continue the extension of his arm for a very long time. The same refreshing effects are observed when the current is used for the relief of these chronic fatigue diseases, and I strongly advocate its employment in cases where the irritability of the muscles is lessened and the nerve trunks are *not* tender. The employment of massage is very beneficial, but it must be used with judgment, and, like electricity, it must not be used while there is any tenderness of the nerve trunks.

The massage should be directed to the whole of the implicated limb, and especially to those groups of muscles in which the irritability is lessened. Massage, like electricity, reddens the surface, and causes a flow of blood to the limb, and it further quickens nutrition by increasing the current in the deeper bloodvessels and lymphatics. If fatigue be caused by the accumulation of fatigue products in the blood, and if this condition, which we call chronic fatigue, be due to the same cause, then massage and kneading of the muscles must commend themselves as means of cure likely to be beneficial. In any case the result of treatment in this case has been very encouraging, and the combination of rest, blisters, electricity, and massage has had the effect of bringing the muscles to something like their normal condition again, and the patient's power of sewing is very greatly increased.

Internal remedies are not unimportant in these cases. The general health must be attended to, and any derangement in the functions of internal organs be rectified if possible. There is one specific remedy which I very often prescribe, and from which I think I have seen good results. This is arsenic combined with iodide of potassium. Our patient is taking one grain of the latter combined with two minims of liquor arsenicalis three times daily. It is difficult to say which of our remedial measures has been most beneficial, but there is no doubt as to his very great improvement. I believe this to be the only true case of "tailor's cramp" that I have ever seen. I have seen many tailors who had a difficulty in the use of the needle, but in all of the cases the difficulty was only an accidental complication, so to say, of some other trouble, such as alcoholism, hemiplegia, paralysis agitans, or locomotor ataxia.

I have often had occasion to remark that all "fatigue diseases" are prone to occur in those professions which entail prolonged rather than intermitting muscular contraction. The scrivener may not be able to lay down his pen for hours, but the tailor must relax his grasp of the needle between every stitch. Hence it is that "writer's cramp" is very common and "tailor's cramp" is very rare. The next case is that of a goldbeater by trade, who comes to us complaining that he is unable to wield his goldbeater's mallet with his accustomed force or precision.

CASE 2.—B. H. is fifty-seven years old, and has been engaged at his present occupation for eleven years. He has

been a soldier, and served in the Crimea. He has enjoyed good health, and there are no facts in his personal or family history which apparently have any bearing upon his present condition. From the account he gives of his trouble we gather that he beats gold with a mallet weighing about sixteen pounds; that his difficulty consists not in any cramp or spasm of the hand, but rather in a general weakness, which makes it necessary for him to shift his mallet at frequent intervals into the left hand, which obliges him to grasp the mallet with abnormal firmness, and which interferes at once with the force of the blow and the exactness of aim. The patient is thin and emaciated, and has a worn look, as though he had worked hard and had not fed very well. On asking him to strip to the waist, we notice he is thin, but we are unable to detect any morbid condition of the muscles of the upper limbs. There is *well-marked tremor* of both hands, especially when they are extended in front of him. This tremor is rather more marked in the right hand than in the left, and on looking attentively at the right hand we are able to say that the tremor is more marked in the thumb than elsewhere. This intensification of tremor in certain places is important and not infrequently gives us a clue to the muscles which are especially implicated. I have occasionally noticed that tremor in a limb is not noticeable until some group of muscles which is morbidly weak is brought or is attempted to be brought into action. Then the tremor begins sometimes in the limb as a whole, and sometimes only in some small section of the limb, which is moved by a muscle which is especially weak. It is important, therefore, to notice that not only is there tremor of both hands, but that the tremor is more marked in the right hand than the left, and most marked of all in the thumb of the right hand. The tongue is tremulous as well as the hands. The tremor of the hands is not intensified by the attempt to perform any delicate act such as the picking up of a scrap of paper. The palm of the right hand has several corns upon it, but these, he says, are not characteristic of his trade. "Not one goldbeater in 500," he says, "has such corns." "They are due to my being obliged to grasp the mallet so tightly." There are one or two corns on the left hand also, which is due to the fact that he is obliged to use his left hand when his right hand gets tired. Both arms are tender, especially tender over the nerve trunks. The right arm is more tender than the left, but he shrinks as if in considerable pain when very moderate pressure is made on either arm, especially over the trunk of the median nerve as it lies to the inner side of the biceps tendon. There are no tender points in the palm. On testing the muscles with faradisation it is noticeable that all the muscles respond equally on the two sides, with the exception of the muscles of the right thenar eminence and the right flexor longus pollicis, in which, especially the latter, there is observed a well-marked depression of the normal irritability—i.e., a current which causes a forcible contraction of these muscles on the left side has little or no effect upon those on the right side. It is obvious that in the grasp of a goldbeater's mallet the muscles of the thumb are all important. It is very interesting also to note this depression of irritability, especially in connexion with the distribution of tremor, upon which I have just been remarking. Now although we have made in some sort an anatomical diagnosis in this case, and although we have demonstrated that certain muscles of the right thumb, muscles essential for a goldbeater's work, are abnormally weak, I am in doubt whether we ought to regard the case as a true fatigue disease or professional ailment. The patient is nearly sixty, and is emaciated and tremulous, the tremor being quite independent of his work, and noticeable, be it observed, in the tongue as well as the hands. I regard the case as one of senile tremor occurring in an overworked and ill-nourished man, whose arteries are certainly degenerating, and whose nerve centres are beginning to be imperfectly nourished. When senile tremor commences it is not surprising that it should show itself most and earliest in the muscles which are most used. This seems to be the case in the patient under observation. The man is very feeble, and especially feeble at his trade, which is a laborious one. Such cases must not, I think, be classed with the true professional ailments caused by fatigue, in which an otherwise strong and healthy subject finds himself incapable of some one delicate manipulation. The treatment in the present case must be directed to the improvement of the general health, food and warmth, rest and tonics.

(To be concluded.)

Three Lectures

ON THE

GROWTH RATES OF THE BODY, AND ESPECIALLY OF THE LIMBS,

IN THEIR RELATION TO THE PROCESSES OF RECTIFICATION OF DEFORMITY.

Delivered June 9th, 11th, and 13th, 1890, in the Theatre of the Royal College of Surgeons,

BY WALTER PYE, F.R.C.S. ENG.,

PROFESSOR OF PATHOLOGY AND SURGERY, ROYAL COLLEGE OF SURGEONS, ENGLAND; SURGEON TO ST. MARY'S HOSPITAL AND TO THE VICTORIA HOSPITAL FOR CHILDREN.

LECTURE II.

HAVING recognised in the first lecture (*vide* THE LANCET, p. 164) the characteristic features of the normal growth of the limbs and of the body generally, and the stature usually attained by healthy English adults in different classes, we may now pass on to the consideration of the manner in which arrest or disturbance of the processes of growth produces dwarfing and deformity of the affected limbs. In the first place, we may find cases of simple arrest from mere inanition, or in cases of premature birth, or from lack of food without any definite disease. Infantile syphilis also is associated not only with arrested general development, but in a special manner with a liability to epiphysitis of various bones, but more particularly of those of the limbs. This inflammation is frequently followed by separation of the epiphysis, with or without suppuration; but it is accompanied in any case with considerable arrest of growth.

Strumous epiphysitis, acute or chronic, when it is confined to the epiphysis and does not affect the joint, also produces shortening. On the other hand, an acute suppurative arthritis often multiple and apparently of a pyæmic kind may be recognised, and has been described by Mr. Thomas Smith as "acute arthritis of infants." In these, if the joint cavities alone are affected, if the infant survive at all, free incision and aseptic dressings may be followed by perfect movement and absolutely no trace of shortening. I have notes of complete recovery in several cases in which the joint was in each case the knee, and the time which has now elapsed since the attack has been three and four years, the infants being then four months and three months old respectively.

Of the *scorbutic epiphysitis* which is described as occurring in infants and young children, I have no personal knowledge as to whether it affects the growth in length of the bone or not, but it is said to do so. The few cases I have seen of children with scurvy, or "scurvy rickets" as it is sometimes called, have all differed so widely from each other that I can form no opinion on this point. Some have periostitis and apparent thickening, while in others, as in a recent case reported by Dr. Colcott Fox, a general wasting of the limb bones was found, post mortem, which reached almost to the point of disappearance in the case of the fibulæ. Hæmorrhages in the epiphyses and beneath the periosteum are common in all these cases.

A concurrent existence of rickets and congenital syphilitis is certainly connected with a modification of the rickety symptoms, generally intensifying the nutritive disturbance. The same may be said, in all probability, of scurvy and rickets. The one may coexist with and modify the other, but neither syphilis nor scurvy can cause rickets. It must be allowed, however, that in children, and to a certain extent in adolescents, the disorder which is ordinarily reckoned as most importantly affecting the whole stature and the shapeliness of the limbs is the common disturbance of the nutritive processes called "rickets."

I wish here to present for your consideration the results of a large number of observations as to the clinical features of the constitutional disorder, and the physical results of the nutritive arrest of skeletal growth and development which is the principal cause of deformity in this disease. It will, I believe, appear that in both these respects cases will be found to differ so widely from one another that the

application of one common rule to all, without distinction of variety, is in fact misleading, and causes patients with dissimilar conditions of nutrition and growth rate, and with different prospects as to recovery, to be grouped together under the appellation of being "rickety."

The word "rickets" seems not to have come into medical use until about 1620, but no doubt it was commonly used along with other derivatives of the early English word "*wrick*," such as *wring*, which all convey the idea of twisting or rotation. There is no doubt about the English origin of the word, and the disease was known abroad as "the English disease." Glisson, however, introduced an element of confusion when, in his original treatise,[1] he turned *rickets* into the pseudo-classical word *rachitis*, and then derived it from the Greek. He was the first to describe the disease as a definite affection of children.

Before I deal in detail with the points of difference which appear to me to be essential to and characteristic in each of these forms of children's rickets, it may be worth while to consider very briefly the chief descriptions which since the disease was first recognised have been given by Glisson, Guérin, Sir William Jenner, and notably quite recently by Dr. Cheadle, who have all naturally viewed rickets in children from the medical standpoint of the general disturbance of health which so characteristically pervades the whole body that it has been universally recognised as a specific constitutional disease, of which the prominent symptoms are due to a general arrest of the processes of growth and nutrition. The more anatomical investigations of Alexander Shaw, whose work with Sir Charles Bell carries us back to a past generation, and who, living beyond man's ordinary term, died at the beginning of the present year, must also be considered.

As to Glisson's work, which has already been alluded to, it was ostensibly the work of a committee, but was really written by himself, and to him must be given the credit of first describing the disease as a definite one. He went further, and is emphatic that it was then a new one, not more than thirty years old, and scarcely yet known among the vulgar, arising in Dorset and Somerset and gradually spreading, and rarely seen in the northern counties. Guérin published in 1839 an elaborate article—"Sur les Caractères généraux du Rachitisme." He makes no reference to Glisson by name, but alludes to the false etymology. His description of its course and symptoms seems to have furnished the model on which later descriptions were based until the appearance of Jenner's lectures. The sharp-featured face looking prematurely old; the head bowed down between the shoulders; the dirty-looking, flabby skin, and feeble ill-developed limbs, "so restricted in the development that our predecessors used to say that rickety infants were *noués*, so bound or tied that they could not grow." The abundant hair on the back and the dislike to walking are vividly described. The thoracic and abdominal disorders, the tumid abdomen, the chronic diarrhœa, &c., are also mentioned. He divides the disease into three stages, and propounded an artificial arrangement of the arrest of skeletal growth, describing an incubation stage, an acute deformative stage, and a chronic deformative stage.

In 1860, Dr. (now Sir William) Jenner published three lectures, in which the pathology and the treatment of rickets were described with such masterly word painting that his account has been accepted from that time forward as coming from one who spoke with authority. The arrest of growth is described as being general in all the bones and in the parts connected with them (ligaments, muscles, &c.) It is a very important consequence in rickets, commencing during its progress, but continuing after the general disease has terminated. The mechanical causes of deformity are recognised as being, in early cases, the effect of the weight of the limbs themselves upon the softened bones, and in the case of the thorax atmospheric pressure; in later cases the chief cause is the weight of the body upon the limbs. He also alludes to cases of early acute rickets where the tibiæ escape deformity, while in later years of childhood they may yield by weight of the body without the other signs of rickets being present. In respect of the general body nutrition, however, it is observed that "whoever sees rickets on a large scale must be struck with the fact that some highly rickety children are extremely emaciated; others may be so inordinately fat that they might have awarded to them a prize at a baby show." He considers this fat to be an evidence of abnormal and unhealthy nutrition; but these references suggest strongly that these cases might be taken as examples of rickets without marasmus.

As a clinical description, that given by Jenner seems to have settled the typical picture, and little or no alteration has been made in the general ideas as to children's rickets since his lectures, while with regard to the etiology, the summing up by Dr. Cheadle may be quoted as a statement of the present position. 1. Rickets is primarily a diet disease, which can be caused at will by a rachitic diet, just as scurvy by a scorbutic diet, and which can be cured as certainly by an anti-rachitic diet, as scurvy by an anti-scorbutic diet. 2. That the chief defect in the diet which causes rickets is want of animal fat. 3. With this probably, also deficiency of the earthy salts in the form of phosphates. 4. A deficiency of animal proteid, in conjunction with the preceding, intensifies the condition. 5. The rickety state is accentuated by evil external hygienic conditions, such as foul air and want of light, although these are not essential to its production. 6. Rickets is modified in character by the concurrent existence of congenital syphilis, and of scurvy.

With the exception of a paper by Stanley[2] in 1816, on the formation of the deformities in the tibiæ, we owe almost all our knowledge of the permanent effects of the disease on the skeleton to Alexander Shaw. His first publication on the effect of rickets on the process and rates of the skeletal growth is to be found in vol. xvi. of the *Med. Chir. Trans.*, of May 22nd, 1832, the paper being entitled, "A Peculiarity in the Form of the Skeleton in Rickets." In this paper the alterations in the growth rate of the skeleton in cases of acute rickets and the characteristic deformities which in later life are still present in consequence of an infantile type of structure are described; and although it was chiefly the effects on the pelvis that he was concerned with, still he insists that what is true of the pelvic arrest of growth is true of all the lower extremity. Shaw continued his investigations, and eleven years later he published a fuller consideration of this persistence of infantile type of skeleton in an elaborate paper,[3] when he says of his former one: "My principal object was to show that, independently of softening and consequent incurvation of the bones to which rickets has been long known to give rise, it has the effect of *arresting* the growth; so that inasmuch as between infancy and adolescence a remarkable change takes place in the proportions of the figure, those of the adult differing widely from those of the child, the normal progress of that change is interrupted by that stoppage." He then discusses fully the effects of this arrest. Want of space will not allow me to do more than briefly summarise his conclusions. He shows that the permanent effect, then, upon the adult, of infantile rickets with arrest of skeletal growth, must be that a dwarfing takes place which can never be recovered from, for it is due not to deformity, but to a lapsed period of growth at a most important time—a lapse which cannot be made up for later, whether growth be resumed upon recovery, as generally happens, or not. It is obvious that if the normal process of growth in infancy and adolescence was a uniform one, a universal arrest of growth would diminish the total size attained, but would not alter the proportions. As a matter of fact, it does so, because the natural increase of the lower half of the body, as compared with the upper half, in infancy, is so very much greater in health, that a general arrest, followed by resumption, will tell far more on the lower limbs than elsewhere. To prove this point he drew up the annexed table (Table X.) of

TABLE X.—*Relative Proportion of Height of Normal Examples above and below the Iliac Spine.* (*Shaw.*)

Age.	Whole height.	Above iliac spine.	Below iliac spine.
Fœtus at 5 months ..	9½ inches ..	5½ inches ..	4½ inches.
At birth	18½ ,, ..	10 ,, ..	8½ ,,
2 years	28½ ,, ..	14½ ,, ..	14 ,,
3½ ,, ...	37 ,, ..	17 ,, ..	20 ,,
8 ,, ...	44½ ,, ..	19½ ,, ..	25 ,,
11½ ,, ...	51½ ,, ..	20 ,, ..	31½ ,,
14 ,, ...	55½ ,, ..	20 ,, ..	35½ ,,
16 ,, ...	62½ ,, ..	22½ ,, ..	40 ,,
21 ,, ...	68 ,, ..	26 ,, ..	42 ,,

the average relative proportions of the height of the body in health in respect of the parts above and below the iliac spine, and compared these figures with those he found in

[1] The treatise, with the title "De Rachitudine sive Morbo Puerilis qui vulgo 'the Rickets' dicentur," was published in 1620, and Culpepper's first translation in 1681.

[2] Med. Chir. Soc. Trans., vol. vii. p. 404.

[3] Ibid., 1843.

rickety cases. He found that in the dwarfed skeletons of the latter the back is on the average only about an inch shorter than usual, and the arms about two inches and a half shorter. The legs, however, may have their growth arrested to the extent of ten inches and a half. This may be put in another way—namely, that the growth of the upper extremities is arrested by rickets to the extent of about one-thirteenth to one-fifteenth of its normal amount, while in the lower limbs the arrest is as much as one-third. Just as dwarfs from rickets are short in their legs, so giants are tall in their legs, the variations in the skeleton above the iliac spines being comparatively insignificant. I have found the statements of the table which Shaw prepared (Table X.) very regularly agree with my own measurements as to the relative proportions of stature above and below the iliac spine, at different ages in healthy children, save that my own records of stature are on the average uniformly larger than his. I am much inclined to believe that there is here evidence that in the last sixty years a notable increase has taken place in children's stature, at any rate in the case of those living in the better parts of London, or on the outskirts of towns. Shaw, it will be seen, gives 18¼ inches as the average length of infants at birth; I have found, however, several cases in which 24 inches, and still more in which 23 inches have been given as the length at birth of infants of the so-called "hospital class" of the artisan, and of the most favoured classes, while with regard to the infantile growth, it is not at all uncommon to find a stature of from 33 to 36 inches attained at the end of the first two years. Shaw's descriptions of the skeletal changes are derived exclusively from the examination of cases in which the disease occurred in early infancy, and ran an acute course; he does not seem to have recognised that among children presenting unmistakable signs of the characteristic deformities of rickets, in addition to the cases in which arrest of growth was present, there were also to be found a large proportion of cases in which nutrition was not notably disturbed; in which bony growth, although distorted, was not arrested; and in which ultimate recovery, partial or complete, was common. I have found that as a consequence of the early acute cases with arrest Shaw's statements as to the permanent infantile type of skeleton, and especially the arrested development of the lower limbs, are absolutely true in the majority of cases. The amount of deformity may be great or small; the permanent shortening will be the conspicuous feature.

The following measurements of cases of acute early rickets will serve as typical examples of what we find commonly in these wasting cases compared with the normal.

1. Boy aged Three Years and Six Months

		Normal.
Height	36 inches.	37 inches.
Above iliac spine ...	15½ ,, ...	17 ,,
Below iliac spine ...	14¼ ,, ...	20 ,,

A case of early acute rickets commencing about the end of the first year, and with almost complete arrest of growth for six months. Very little deformity. Effective shortening, seven inches.

2. Girl aged Eight Years.

		Normal.
Height	37 inches.	44½ inches.
Above iliac spine ...	19·4 ,, ...	19½ ,,
Below iliac spine ...	17·6 ,, ...	25 ,,

A case of acute rickets, with arrest during the second and part of third years. The defection of stature was six inches and a half, and was all in the lower limbs. The measurements were taken along the real, not the apparent, length.

3. Boy aged Three Years and Three-quarters.

		Normal.
Height	31½ inches.	38 inches.
Above iliac spine ...	16 ,, ...	17¼ ,,
Below iliac spine ...	15½ inches.	20¾ ,,

A case similar to No. 1, but not quite so severe. No signs of rickets until two years and three months old. Was not weaned until two years and one month. Two of these (Cases 1 and 2) are included in the number of acute wasting cases given in Table XI. Case 3 is one upon which tibial osteotomy was performed, and will be referred to again in the last lecture.

About five years ago I began a systematic inquiry into the question of the arrest of growth in rickets, to ascertain its frequency, its extent, and its duration in time, by means of measurements taken at frequent intervals of the whole stature and of the length of the lower limbs of children brought to the hospital as rickety. The most striking clinical feature which becomes apparent on comparison of a good many children so designated is the contrast which one group of cases in which acute wasting, arrested development, and innutrition, with or without deformity, are present, and for which I propose the name of "marasmic rickets," bears to cases of altogether another type where constitutional disturbances, although present, are not nearly of such a high grade, where deformity is always present and where there is either no arrest of growth or it is very slightly diminished. The illustration Fig. 1 is from a photograph of a case of the first or marasmic type, while Fig. 2 is an example of a case of this second type, which may be distinguished from the first by the name of "non-marasmic."

FIG. 1.

Marasmic rickets; early case.

FIG. 2.

Non-marasmic rickets; early case.

I propose to describe the differences existing between them, especially in regard to their skeletal character and growth rate, confining the description to these points as we see them in infancy and early childhood. It was important, of course, that the patients should be, at the time of first observation, actually suffering from and getting more deformed by rickets, not merely distorted by a past attack. This point was, I think, secured by inquiry into the history, and by considering only cases in the first five years

of life, all the cases measured manifested, but in very various degrees, the symptoms of general rickets, as well as the particular deformities of the limbs. The measurements were made in exactly the same way as those upon the limbs of healthy children of the same age (see Lecture I.), and the results of seventy-nine observations of rickety infants from cases six months old to those in which the disease developed in the fourth year are here given.

TABLE XI.—*Comparative Growth of Children with Rickets.*

Age.	Number of cases.	Normal average growth.	Annual growth, taken at 2 or 3 months' interval.	
6 months to 1 year	14	About 3¼ inches	1¾ inches	Very variable. Complete arrest common, not of long duration. In 2 cases only was no evidence of arrest.
1 to 2 years	17	4 „	2¼ „	Proportion of marasmic cases 10, of non-marasmic 7
2 to 3 „	25	3 „	2¼ „	Proportion of marasmic cases 8, of non-marasmic 17.
3 to 4 „	16	2½ „	2 „	Two cases of wasting and arrest.
4 to 5 „	7	2¼ „	2¼ „	No evidence of arrest.

I have no observations on infants under six months. Infants are never, as far as my own experience goes, born rickety, and in any case such an occurrence is very rare. In the first months of life, also, it is not common. From the sixth month to the end of the first year cases are much more frequently met with, presumably because errors of diet are beginning to be committed. The limbs, even of healthy infants of from six to twelve months, are still very small and difficult to measure from reasons I have given before; and I have found it necessary in cases in the first year to confine the observations of the effects of rickets to the result of measurements of the whole length of the body at two months' intervals. Taking it that a healthy infant at birth should be about 19½ inches long if a male and 19⅛ if a female, which is rather a low estimate, it will have increased to 26 or 27 inches respectively by the end of the first year; but as the growth rate is throughout the whole time declining, it will not be safe to allow more than 3½ and 2¾ inches as the normal rate for the second six months.

Table XI. will show that in infants attacked with rickets at this age the average rate is enormously reduced. At two months' interval it was often impossible to make out any growth at all, although it rarely happened that this standstill was continued throughout the whole six months.

When rickets develops so early as the end of the first year, the symptoms are almost always severe, and especially the wasting of the limbs and the enlargement of the epiphyses. The enlarged abdomen, sallow skin, diarrhœa, and other signs of marasmus, which have been before described, are commonly present in an acute form. Speaking more particularly of the skeletal deformities, arrest of growth may be even complete for three or four months, and is commonly very well marked. It frequently happens that an infant will seem to be even shorter at the end of its first year than it was at six months old. This, however, is apparent only, and is due to the development of curvatures, which are most marked in the thigh bone. The distortions of the long bones are at this age much more general than they are in cases developed later; not only is the swelling of the epiphyses actually more marked, but the wasted condition of the soft tissues makes them more apparent. The clavicles and bones of the upper extremity are at this time as susceptible of curvature as the thigh and leg bones are, the shafts of all the long bones being so soft and yielding that the mere weight of the limbs is sufficient to produce their distortion; whereas, in later cases, the chief mechanical cause of deformity is, as will be shown, the weight of the whole body, the stress of which is borne chiefly by the lower extremities, so that the rest of the skeleton escapes. The effect of atmospheric pressure upon the chest walls is also more marked now than later. This, aided perhaps by the pull on the diaphragm of the swollen liver and spleen, results in the well-known indrawn and constricted thorax. Before the twelfth month the softening of the long bones may reach such a degree that quasi-spontaneous fractures may take place, *not* at the epiphyses, but at the points of natural curvature, as in the S curve of the clavicle, the centre of the shaft of the femur, &c. The lesion is hardly a fracture, but rather an unusually sharp-angled yielding of the over-flexible shaft, without any real solution of continuity. It is not even a greenstick fracture. There is no callus, and the deformity can often easily be reduced by the hand. Another point about the deformities in this early wasting rickets is the short time which the extreme or total arrest lasted as soon as the diet was rectified and proper hygienic habits adopted. Although general wasting, with malnutrition and arrest of growth, is characteristic of the great majority of cases in the first year of life, the rule is not invariable: two out of the fourteen whose average measurements are here given, while showing the typical curvatures, enlarged epiphyses, and disproportion of head to body, were in other respects very fairly well nourished in body and limbs, and they showed no trace of arrest of growth. But non-marasmic cases are the exception, and in most cases the rule is to find arrest of growth, partial or complete, and general malnutrition coexisting. It must be remembered also that the normal rate of growth in an infant of this age is so enormous in proportion to its own length that the effect of arrest, even for only a few months, upon the future stature is really greater than it seems to be at first sight.

From the first to the second year rickets is very common. The wasting form is still generally found, but cases are now more frequently met with, such as seen in Fig. 2, where, along with the formation and development of the ordinary deformities, nutrition is well sustained, and the growth does not seem to be impaired to any extent. The cranial sutures may be a little late in joining, but the bones of the limb generally are firm, and although curved are strong, and slightly, if at all, tender on handling, or if the weight of the body is borne upon them. In this, these non-marasmic cases present a strong contrast to the marasmic ones at the same age, who, as a rule, are reluctant to walk or use their limbs, so that during the period of arrest of growth and for a little time afterwards the bony deformities may be generally easily prevented, or having been allowed to form, may readily be rectified by manipulation and straightening, massage, and other simple means.

The cases of rickets developing in the second year, in which wasting and arrest of growth are prominent features, are, so far as I have been able to estimate, more common than the cases in which, while rickety deformity is present, nutrition and growth are not arrested, in the proportion given in Table XI.—i.e., 10 to 7. From the second to the third year children, at any rate London children, appear to be especially liable to rickets, but now the number of cases in which there is any noteworthy arrest of growth in length are in a distinct minority—i.e., 8 to 17. The majority present the ordinary appearance of non-marasmic rickets. The proportion of the head and face, the swollen wrists and ankles, &c., are all characteristic. The teeth, however, are generally cut at this age, before the attack comes on, and are well enough developed, while the reverse is the case in the wasting form. The cases of children attacked by rickets in the third to the fourth year are much fewer than in the previous year, and the number falls still lower for children in their fourth to their fifth year, when the liability to the disease disappears almost entirely. In both these years arrest of growth seems hardly ever to occur; indeed, it is only by their having a history of a previous non-rachitic condition up to their third or fourth year that they can be recognised from the cases, which are of course common, which apply for relief in consequence of past rickets and its resulting deformities. True late rickets and other deformities of adolescence, more doubtfully rickety, I will afterwards refer to. Certain cases, I think, are examples of true relapse, but on this point I have not yet sufficient data to be at all positive, and there are, as will readily be believed, cases which seem to be on the borderland—rather poorly nourished but without arrest of growth; or again, are fairly healthy looking but are not growing. As a rule, however, the distinction and the

difference between the two ilnesses is very clear, and it is easy to, so to speak, place them. The fat of the non-marasmic rickety infants is generally firm and healthy enough, and the thick, trembling pot-belly has a very different appearance from the thin, tumid, misshapen abdomen of a wasting rickets. Sometimes, however, the fat is abnormally waxy and soft, and has a pseudo-anasarcous feel, which rapidly disappears as the health improves. There has never been true anasarca in the cases I have observed.

NOTE.—In the report of the first lecture (*vide* THE LANCET, p. 164 *et seq.*), although the name of Mr. C. Roberts is mentioned in connexion with the production of the Anthropometric Committee reports and tables, a fuller account of his responsibility for the whole of these valuable tables was by inadvertence omitted in reducing the size of the lecture for the press.

NOTES ON THE PATHOLOGY OF INFLUENZA.

BY WILLIAM SQUIRE, M.D., F.R.C.P., &c.

AN imperfect sketch of some of the pathological characters of influenza as lately epidemic with us may well precede the more completely generalised account we await. An attempt to group the facts recently observed calls attention to the more constant or specific features of the disease, and to various associated complications, distinguishing from them the symptoms of other diseases and conditions that have been at times confounded with this one, while it leads to the practical consideration of methods of treatment and of the results obtained. Sudden ingress with marked fever, after a short incubation, is the first character to be noted. Severe aching of the head, body, or limbs, with great lassitude accompany the first fever, and are felt before the chill; this last, when present, is an early symptom, and always febrile. Some slight degree of coryza occurs, with flushed face, at first. The eyes are mostly suffused at this time, and the fauces are red; there are fulness of one or both tonsils, a red line at the edge of the soft palate, and redness of the pharynx, which sometimes extends to the larynx, with cough; neither the tone of the voice nor of the cough, if any, is altered; sometimes stomatitis adds to the difficulties both of articulation and of deglutition. The superficial cervical glands are often palpably enlarged; the more deeply seated lymphatics at the angle of the jaw are less perceptible. Stiff neck or some other fixed pains, more neuralgic than rheumatic, and not proportionate to any obvious local cause, are sometimes complained of from the first; similar pains, accompanied by soreness as of a bruise, or with extreme surface tenderness, occur later; when no early catarrhal defluxion or secretion appears abdominal pain with diarrhœa, preceded by vomiting, gives evidence of a gastric rather than of a bronchial catarrh; sometimes an attack of jaundice follows, or some herpetic spots on the tonsil or lips may be the only local signs left by a seemingly severe attack of illness. The pulse is accelerated with the raised temperature, and subsides with it on the second or third day, sometimes to below the normal frequency; the respiration is less quickened in the beginning, and often somewhat shallow unless cough follows. Epistaxis is not uncommon, and has simulated hæmoptysis in some cases. Perspiration frequently marks defervescence; it also recurs during the persistence of the fever and in the relapses, appearing in some epidemics as a prominent, though not a critical, symptom; disturbed innervation of the skin is also shown by varying erythemas in the course of the disease, or by pallor and alterations of sensibility. Sometimes the occurrence of catarrh has aided defervescence; but where this condition affects the air passages, as is often the case, especially in some epidemics, the fall of temperature is interrupted, the pulse and temperature increasing in frequency. In these cases pneumonia, mostly of the catarrhal kind, is a common complication; sometimes pleurisy, more rarely pericarditis. Angina pectoris has been excited by an attack of the epidemic. Albuminuria has occurred in the course of influenza and glycosuria in the after stages of the disease. Delirium of a transient kind has been observed; mental hebetude is often produced and slowly clears off. Symptoms of meningitis or of any localised cerebral lesion seldom occur. Hyperæmia of the spinal cord with hæmorrhagic foci and degenerated nerve fibres, without lesion of the grey matter, after an acute attack with fatal pulmonary lesions is reported (May 23rd) by Dr. Fea of Turin. It is a matter of old remark that the violence of the influenza attack "bears no proportion either to the danger or duration of the distemper."[1] In no other epidemic are the numbers attacked so great and the direct mortality so small; yet perhaps no disease is more apt to influence unfavourably the course of coexistent maladies, or to evoke the evils of any special diathesis. Many chronic ailments remain after attacks of influenza half a year ago, and recent deaths have resulted to invalids whose failing health dates from the same time and cause.

The common use of the clinical thermometer since the last influenza epidemic gives us a great advantage, over what was possible to observers of 1847, in studying the febrile disturbance produced by the disease. It is in the variations of the temperature chart we see wherein the distinctive character of this fever consists, and wherein it differs from the changes in body heat caused by other specific fevers. The sudden rise of temperature at the outset is established; also its somewhat sudden subsidence on the second or third day, with its tendency to relapse or recurrence, and the singular want of relationship observed between its amount or duration and the extent or kind of the local lesion present. The remarkable variation in some of the symptoms, both as to the order and degree in which they subside, and in the various complications excited, are really aids to the diagnosis of influenza as a distinctive malady, even while tending to confuse its own special characters, and to make the differences of its various reappearances seem greater than they are. Small-pox, typhus, enteric and scarlet fever also begin with high temperature and great prostration, but we look in vain for the remission on the second or third day, and where the raised temperature of influenza has continued longer the absence of the distinctive signs of the other specific fevers, those of enteric fever especially, are important elements in the diagnosis.

The typical fever chart of influenza shows: (1) A sudden rise of the temperature, often reaching its acme, which may exceed 104°, on the first day or within a few hours; (2) defervescence on the second or third day, either gradual or with sharp oscillations to the normal or below it, and again reaching nearly to the initial degree (this may recur); (3) a true relapse, either at the week end or later (this also may happen more than once). Each of these points needs comment. First, by the very sudden rise of the temperature and the possibility of its sudden decline the first fever may escape notice and emerge into a collapse from which there may be no recovery. This oversight would be less likely to occur were the accession of fever always marked by chill or rigor; but it is not, and herein a possible distinction from acute lobar pneumonia is at once found, soon confirmed by the subsequent febrile remission in influenza and the absence of distinctive pulmonary signs.

Dr. Glass in 1775 called the fever of influenza "a Diary and decreasing fever, because it either ends or begins to decline within twenty-four hours, and never exceeds the fourth day."[2] Dr. Whytt[3] says in 1758: "Few upon being taken ill complained of any coldness or shivering, commonly the first feverish symptom, ... though some had it in a relapse, which was often much more severe than the first attack." Dr. Grainger has published some important temperature observations in the *Glasgow Medical Journal*. A footnote[4] quoted from a continental observer describes "sudden rise of temperature, for the most part without shivering, and often without catarrh" as characteristic of the epidemic attack abroad. Yet a doubt was thrown on the first case in London that came to my knowledge (Oct. 16th), with a sudden temperature of 104° and no catarrh or after complication, because there was on chill at the onset.

Two of the three cases under my care this winter, given further on, were without initial rigor; numerical records are yet wanting as to the proportion of cases beginning with chill or vomiting, and of the number of cases including the slighter attacks followed by catarrh. But early fever, mostly well marked, may not be absolutely the first symptom to appear. In cases of my own, some observed in 1857 under the name of influenza in epidemic form, and some as late as 1868, which were doubtfully so, coryza,

[1] Annals of Influenza, p. 149; see also pp. 34, 64, 72, and 85.
[2] Ibid., p. 99. [3] Ibid., p. 64.
[4] Münch. Med. Wochenschrift, 1890, No. 2.

cough, or diarrhœa was observed in a small proportion of them before the fever began.[5] The connexion of influenza with pneumonia and herpetic sore-throat, *angine couenneuse* of Trousseau, is here traced, and the latter "considered as the sporadic form of influenza." These cases were of children; and with them the febrile course of the disease is seldom very intense or prolonged. I have also observed cases in adults where a fixed pain preceded the fever; in these cases when any catarrhal secretion was established the fever and some of the anomalous symptoms subsided. As to the second point, where the initial fever has escaped record the secondary subsidence may merge into collapse. This occurred, as I take it, to an old patient, a lady eighty-three years of age, who on Dec. 8th last, without any definite exposure to causes of illness or any proclivity to either pulmonary or renal disease, suddenly became weak and ill. Next day some diarrhœa seemed to account for her depression and pain; on the 10th there was no fever, the neck was very stiff and arms rigid; there was some albuminuria; great depression followed; the pulse not over 60 a minute, and weak; temperature subnormal. She was helpless, often calling out from pain of the neck or body; sight failed; the pupils became dilated; hearing and consciousness were unimpaired; the power of sight returned to some degree; aphthæ appeared in the mouth; cardiac failure, and death on Dec. 15th.

Again, the first subsidence of temperature may be delayed by various complications, mostly such as depend on the more marked signs of pulmonary or gastric catarrh. This and the third point under consideration will be illustrated by three instances during the present epidemic in healthy young women from seventeen to thirty years of age. The youngest, living in South Kensington, after a little extra fatigue on Dec. 14th had in the evening sudden pain in the chest and right shoulder, with great depression, headache, slight cough, shallow, but not short, breathing. Temperature 102°; pulse 126. The fever increased in the night, till after sudden vomiting it was in the morning of the 15th 101·5°; pulse 104; evening temperature 103°; pulse 110. Next day there was abdominal pain and increased fulness of one tonsil; temperature 103·2° to 103·6°; pulse 110 to 100. Dec. 17th: Still in bed; no appetite; temperature 102° to 102·8°; pulse 100.—18th: Cough and sore-throat; specks on right tonsil; temperature 101° to 100°; pulse 98 to 92.—19th: Temperature 98°; pulse 88; herpetic spots on both tonsils. The throat soon cleared, the cough became troublesome and prevented sleep; debility, but no marked relapse, followed, unless the recurrence of some hæmorrhoidal tendency, not previously noticed, is to be looked upon as a legacy from influenza.

My second case is that of a young woman from the country, living for some months in a healthy suburb. She was in London for some hours on Dec. 29th in a dense fog; was tired at night, and could not sleep. The next morning her temperature was 103°. She was giddy, and could not get up or stand; the tonsils were full, and the left one specky. The temperature rose to 104° before night, but the following day it was normal. On Jan. 1st she was up and felt well, except for slight sore-throat and some herpes labialis. Meanwhile in the same house a lady, who had passed through London on returning from a visit, was attacked with chill and a suddenly high temperature, suggesting influenza, so that every precaution, except confinement to the bedroom, was enjoined for the girl so suddenly convalescent. She had not been out of doors, when on Jan. 7th fever returned at night with rigors; the lips nearly well, again became sore, and the tongue swelled. She could not speak, and became alarmed. Her temperature on the morning of the 8th was 105°; her cough was clear in tone, and the difficulty as to speech was merely one of articulation; there was pain in the right ear, and a considerable degree of hyperæsthesia. In the evening the mouth was better, and the temperature down to 103°. She said something seemed to give way in her throat and ear in the night, and by morning she was laughing and talking, and her temperature was normal. There has been no subsequent relapse and no feeling of illness since.

The third case began with chills, fever, and headache; the temperature was 103·6° at night. Next day it was 103°–103·2°, with aching of the back and limbs. On the third day the temperature was 100·6°–101·6°. The small glands could be felt on the side of the neck; the left tonsil was full. On the fourth day the temperature was 99·6°–101°; the right tonsil being affected. On the fifth day the temperature continued below 100°, but during the next day it reached 101·6°, when severe neuralgic pains returned, and quinine was given. On the seventh day the temperature was again below 100°, but the pains increased so that it was difficult to move the patient and impossible to raise her head from the pillow without raising the shoulders. On the following day intercostal pain interfered with free respiration, though the respiratory sounds were clear and without pleuritic signs. Quinine had been taken before this, but antipyrin was given in place of it on one or two days only, with no other effect than of causing some perspiration; neuralgic pain without any swelling or redness occurred successively below the right knee, in the left foot, and in the left index finger. On the tenth day the pain was felt above the right ankle, and not in the left foot or finger; the stiffness of the neck and body was less, but the temperature had again arisen to 102°, and next day was above 103°, making a third exacerbation, this time with furred tongue and gastric discomfort, but without any chill. An aperient was now of service, and the temperature fell on the thirteenth and next two days as follows: 100·5°, 101·6°, 99·4°, 100·4°, 99·2°, when quinine was resumed with continued advantage. Numerous herpetic spots appeared on the shoulders and elsewhere during this final crisis and faded about the twentieth day from the commencement of the attack; rest in bed had been compulsory throughout, at first from the prostration of the febrile attack, and then from the great weakness left after it. The long convalescence was without further relapse. The pains felt in this case exactly resemble both in kind and degree what has been so often described in this and in previous epidemics.

The relapse in the second case is typical of the disease; it was neither the result of want of care, or from any kind of mismanagement; nor in any way owing to diet, medicine, or stimulants. Here the higher fever of the second seizure and the rigor, not felt in the first, point to some form of spirilla as the pathogenic germ, sometimes overcome in the first reaction, but not to be expelled by drugs or destroyed by antidotes. Neither of these three individuals take any form of alcoholic stimulant, excepting a light claret sometimes by the first; the second has had nothing of the kind; in the third cautious trials during the illness were not encouraging, and both with her and with the first of these patients in their convalescence the occasional use of aromatic sulphuric acid with other tonics answered better than giving either claret or port wine. These cases were almost without pulmonary catarrh; for the irritable cough noted in the first case, like a form of dyspnœa sometimes occasioned by influenza, was evidently from nerve disturbance with impaired tone of the pneumogastric which, if not reflex from the gastric irritation present, may have been of centric origin. Dyspnœa of this kind, relieved by alcoholic stimulant, occurred on the eruption of measles in a lad who, coming to London in the last Christmas holidays, was seized with influenza on Jan. 5th. On the 12th what was thought a relapse proved to be the initial stage of measles, to the infection of which he had been exposed on Jan. 2nd but not afterwards; whooping-cough was suggested on the 20th; the rash of measles declared itself from the 23rd to 25th. By Feb. 12th convalescence from both diseases was complete. Here the inoculation of measles was delayed by the influenza, and we see how this epidemic may modify other prevalent diseases.

Absolute rest is the first condition of treatment in all fevers; in this one it is often unavoidable, and need not be enforced beyond the time necessary for diagnosis; in graver or more directly infectious illness a longer seclusion is needful, for the safety of others as well as of the patient. Here defervescence is not aided either by antipyretic medicines or by those to excite the perspiration or other secretions; nor is the relapse dependent upon fatigue or exposure. Close confinement to one room, or to bed for many days, is unfavourable; fresh air, always essential, is of the greatest importance in the sick room, which is better kept cool than hot. Lemonade with a little gum or glycerine, ammoniated salines, and milk with soda-water are useful drinks; ice is sometimes grateful, and may be taken in small pieces after warm diluents or liquid nourishment. External warmth, either the hot sponge or dry heat, relieves local pains; or a liniment of belladonna and opium is of service; the use of opium or of other anodyne

[5] Collected Essays, part 2. Temperature Variations in the Diseases of Children, pp. 20, 38. (Churchill, 1887.)

drugs internally is to be restricted. Less relief is obtained from antipyrin against the aches and pains of influenza than in some other forms of neurotic suffering. Salicylate of soda is less suitable than simple salines, such as the old mindererus, citrate of potash, or effervescing soda.

Catarrh of the respiratory surfaces, so frequent in 1847 that Dr. Peacock's account of the epidemic deals chiefly with this complication, has of late seldom required the administration of antimonials, nor in the more severe pulmonary accidents of the present epidemic under my notice would they have been advisable; bronchial catarrh is not always aided by the steam kettle so often employed; any form of spray would sufficiently moisten the air of a room without displacing an undue proportion of it by aqueous vapour. Ammoniated quinine is specially useful in convalescence from the catarrhal forms of influenza; its free use proves it to be a suitable if not a certain prophylactic. Convalescence demands some form of tonic; and besides champagne and oysters, cinchona or quinine and iron are needed.

The rapid rise and subsidence of influenza as an epidemic are special features; another is the widely different intervals at which epidemics recur. The degree of subsidence in each place and the time it takes vary somewhat, both as to the size and sanitary condition of each place, and partly from other conditions, some of them as yet unknown, so that we cannot say when the epidemic may reappear or return. This year in London a well-marked seizure in the last week of June, with relapse on July 1st, has come to my notice. The epidemic of 1831 lingered in Paris for two years. An old resident in St. Petersburg informs me that after 1831 very little was heard there of the epidemic till 1847. Since then the place has increased greatly, and influenza has of late been prevalent at all seasons, and is dreaded less in its catarrhal form than as a complication of the common fevers of that insanitary capital. After the summer of 1831 influenza reappeared in 1833 both here and in Paris, where it was said to have affected four-fifths of the inhabitants, but was not widely epidemic until 1837. My own experience in London of the 1847 epidemic, and since, inclines me to think that but few cases of the kind were met with, unless herpetic tonsillitis be such, until the winter of 1853–4; more were observed in 1857, and thence onwards scattered cases, latterly increasing in frequency. Of the further extension in India of this epidemic an old friend informs me from personal experience that influenza reached Lucknow early in March before the disease appeared in Calcutta, and soon after it began in Bombay; he also witnessed the first effects of it at Umballa near the end of March, when it was subsiding at Lucknow after affecting half the inhabitants. No further reports of influenza have reached me from India except of the somewhat sudden and complete subsidence of the epidemic.

The diseases most readily confused with influenza are typhus and enteric fever in Europe, sometimes measles, and abroad its more harmless ally dengue. Some symptoms of typhus, such as the spotted eruption, are not infrequent in the older reports. In one of the best and latest, from the "Annals," by Dr. Clendinning, 400 cases of influenza are reported for January, 1837, of which 150 were seriously ill; of these twenty-five of "fever, in several instances typhoid,"[6] are reported. To the late Dr. Boyd, my predecessor at St. Marylebone Infirmary, whose zeal for pathology is well remembered, the value of this report is partly due. The closer correspondence of the 1837 epidemic with this one, rather than with that of 1847, is well shown by Dr. Streeten's report to the Provincial Medical Association. Some cases of inflammation of the spinal cord there mentioned[7] are probably attributable to influenza, as perhaps some of cerebro-spinal meningitis in subsequent periods may be. The "soreness of the lips, mouth, and fauces, of unusual severity" mentioned (p. 322) agrees with Dr. Robert Williams's notice of vesicated lips as a symptom in that epidemic, as it often has been of this, and one I believe that is found in sporadic cases. We have to go back a century or more before we meet with the typhus maculæ attributed to influenza; the spots of purpura or scurvy were no doubt really associated with influenza. Of measles it is as difficult to say whether cases reported in 1803 were independent of, or concurrent with, influenza as it has been in the present epidemic.

[6] P. 355. [7] Ibid., p. 329.

The relation of dengue to influenza is a close one, but the differences are marked. Though little, if at all, known in Europe, dengue has received careful study. It depends more upon direct personal infection, and is less widely and rapidly epidemic; the rash, with the second rise of temperature and the after symptoms, differs more widely from influenza than does the temperature curve; this, as noted by the late Dr. E. Seguin of New York, has a sudden rise, often to 104° or 106° on the second day, and subsides somewhat on the third day; the second rise is from the fifth to the eighth day with a distinctive roseola. The period of incubation is a short one, as shown by Dr. Taylor in his sanitary report of the Punjab for 1872. Both these points have been verified by Drs. Skottowe and Corney in the Fiji epidemic between May, 1885, and March, 1886; one attack does not confer immunity from a second. In a paper recently read at the Epidemiological Society Dr. Skottowe reports that influenza in Fiji, introduced somewhat earlier, spread more rapidly than dengue, and ceased much sooner. The close concurrence of these two epidemics must be looked upon as entirely accidental, just as are instances of scarlet fever and measles preceding or following influenza, or of the sequence of cholera to influenza from the coincidence of 1832. In limited communities the spread of epidemic diseases is better studied than where the conditions are more complex; the laws of pathological evolution can be more surely investigated where a large population affords the widest scope for the varied incidence of disease, and for the still more varied constitutional reaction to it in all sorts and conditions of men.

Harley-street, W.

TRANCE FOLLOWING INFLUENZA.[1]

BY NATHAN RAW, M.B., B.S., L.S.Sc.,
ASSISTANT MEDICAL OFFICER, BOROUGH ASYLUM, PORTSMOUTH.

LOUISA C——, aged thirty-nine, married, was admitted into this asylum on Feb. 24th, 1890. She was carried from the cab to the reception room in a helpless state. She could not sit on a chair unless held in position, without which she fell to the ground. Face unusually pale; skin bedewed with cold perspiration. Eyes closed; pupils normal. Limbs relaxed, but when placed in any position remained for some time, until overcome by gravitation. She was apparently unconscious, and could not be roused. Physically she is a stout, strong woman, with congenital talipes. Heart sounds could hardly be detected even with stethoscope; pulse could only be felt as a minute thread at the wrist, and was 45 to the minute. Respiration slow, shallow and quiet, and was hardly discernible, 12 per minute. She was placed in a warm bath and vigorously rubbed with towels, with a hope of restoring her to consciousness. Beyond slowly opening her eyes and leisurely looking around this had no effect, as she at once relapsed into her former unconscious state. She assumed the dorsal decubitus with her arms by her side, and unless carefully examined was apparently lifeless.—March 3rd: For the last seven days she has remained in exactly the same unconscious state, eyes half open, conjunctival reflex present. Pupils act to light. Knee-jerks much exaggerated, no ankle clonus. Apparent cutaneous anæsthesia, as pins stuck into her muscles are not felt. Urine and faeces passed in bed; has refused food absolutely, and has been fed three times a day by the stomach tube with milk, eggs, brandy, &c. Nothing seems to rouse her. Cold water, beyond a momentary reflex effect, is useless; an ice-bag to the spine and a strong current of electricity are of no avail. The nurse on special duty with her this afternoon thought she was dead. When seen a few minutes after she was apparently lifeless, breathing almost imperceptible, and heart sounds could not be detected with stethoscope. A galvanic battery applied over the region of the heart, artificial respiration, and inhalation of nitrite of amyl had the effect of restoring her vital functions a little.—7th: She suddenly opened her eyes, and looked around her, after remaining unconscious for ten days; was persuaded to take a cup of tea; only answered questions in a whisper.—8th: This morning she was cheerful, talked quite rationally, did not know where she was or when she

[1] "Trance or lethargy as it occurs spontaneously is a peculiar sleep-like state from which a patient cannot be roused, or can be roused only imperfectly, and which is not due to organic disease of the brain."—GOWERS.

came, had no memory whatever for the events of the last ten days, took her food well, and sat up in bed.—May 12th: Talks a good deal about religious matters, but has no delusions; went out to-day on a month's trial.—June 12th: Was discharged this day, recovered.

The following is the history as given by the patient. She has always been hysterical. No history of intemperance or insanity in the family. For several years she has been a diligent student of the Bible, and thoroughly believed everything therein regarding a future state. One month before admission two of her children were taken ill with influenza, after their recovery she herself contracted the disease, and had a most severe attack. The pain in her head was excruciating, and she was quite prostrate in mind and body for two weeks. After spending an anxious day she relapsed into a deep sleep, during which she had a dream, and was awakened by a loud voice, which said, "You are dead." She felt quite helpless, and lay in this state for two days, absolutely refusing all food. When visited by the doctor she informed him she was dead, and wished to be buried. She was at once removed to this asylum as insane. She remembers coming into the gates of the grounds, which she thought was the cemetery. She says that had she been put into a grave she could have offered no resistance.

Remarks.—Some very interesting clinical points arise in this most unusual case. The condition of trance is exceedingly rare in this country, Gowers having seen only four cases. Regarding the diagnosis of the case, I am not yet satisfied as to the true mental condition. Here is a woman whose physical and mental powers are exhausted with the care and anxiety of nursing her sick children, then she is herself prostrated by a severe physical illness with great mental depression. She is not predisposed to insanity either by hereditary transmission or otherwise, but she is undoubtedly hysterical and emotional. Was the woman insane? The voice which she heard was not a true hallucination, as she was unconscious from sleep at the time. Legally, she was insane without a doubt; she was not responsible for her actions, and would have probably died from want of food, the diagnosis thus resting between (1) delusional insanity, (2) hysteria, (3) catalepsy, and (4) trance. She was not suffering from catalepsy, as evidenced by the absence of muscular rigidity; nor were the symptoms purely hysterical, as shown by the utter impossibility to restore her to consciousness. Then regarding insanity pure and simple, this is negatived by the fact that she has no memory whatever for what occurred during those ten days, and the sudden and complete recovery from all the symptoms. I am inclined to think that this was a case in which, from severe nervous exhaustion and with a predisposition to emotion, the patient's mind was temporarily unhinged, and that the trance condition was due to an inhibition or arrest of action of the nerve cells, probably from previous exhaustion.

Portsmouth.

REMARKS ON MODERN METHODS OF CATARACT EXTRACTION.[1]

BY CHARLES G. LEE,
HON. SURGEON TO THE LIVERPOOL EYE AND EAR INFIRMARY.

THE method usually adopted for the removal of an opaque senile lens is pretty well known, and were it not that just now the minds of ophthalmic surgeons are much exercised as to the advisability or otherwise of one or two proceedings in the course of the operation, I should not have presumed to call attention to a subject that at first sight might appear commonplace. In furnishing a title for this short paper, I have made use of the word "modern," to indicate my desire to discuss the question from a clinical and experimental, rather than from a historical, standpoint, believing that by this method any personal experience one may have obtained will be more easily and expeditiously brought under notice. I think we are justified in applying the term "modern" to the operation known as von Graefe's, and to all the modifications that have been subsequently introduced, very few operators adhering strictly to the letter of that great master's directions. Previously to Graefe's time the flap operation held almost universal sway, having supplanted the older operation of couching. I think it well to divide the steps of the operation into five, as each modification or novelty can then very readily be discussed in its appropriate place.

First stage: incision.—The modern tendency is to place this more forward than in the original directions, the causes being chiefly two—(*a*) danger of escape of vitreous, and (*b*) fear of wounding the ciliary body. Personally, I plan my line of incision similarly to that adopted by Mr. Swanzy, and I cannot better describe it than by quoting from his recent handbook: "The point of the knife is entered just in the margin of the clear cornea, at the outer extremity of a horizontal line which would pass three millimetres below the summit of the cornea. This line is easily found by placing the knife, which is about two millimetres broad, horizontally across the cornea, so that a margin of clear corneal tissue one millimetre broad may remain exposed between the knife and the summit of the cornea. The knife is then passed cautiously through the anterior chamber and the counter-puncture made in the corneal margin at the inner extremity of the horizontal line described, and the incision finished in the corneal margin by a few slow to-and-fro motions of the knife." There is considerable variation as to the situation of the corneal incision, the general tendency, however, being to advance it. Mr. Pridgin Teale, using a knife somewhat resembling a Beer's, places his line of incision midway between the centre and periphery of the cornea.

Second stage: iridectomy.—We now enter upon most debatable ground. This procedure, which was formerly held to be a most essential part of the operation, has of late years fallen into disuse in the hands of some most eminent operators. The chief reasons for this abandonment of an iridectomy seem to be, first, that it is unnecessary; secondly, that from a cosmetic standard the results are not so good. We may at once concede the possibility of removing the hardened nucleus without an iridectomy, but it may be that only then have one's difficulties commenced; frequently we are met by an immediate prolapse of the iris into the corneal wound, which resists all attempts at reduction, and it must be excised. Should this accident not happen at this stage, it is by no means certain that it will not occur—indeed, my experience points to the third or fourth day after the operation as those on which it may happen. The mode in which it occurs is worth notice: it appears to be coincident with the closure of the corneal wound; the filtration of the aqueous being stopped, the iris is bulged by the retained fluid, and it only requires a slight movement on the part of the patient to break through the recently cemented lymph—a sudden gush of aqueous occurs, and the iris is carried into the wound. To free the iris from its incarceration is now no easy task, and if it remain in its malposition our patient has probably to encounter the dangers of sympathetic ophthalmitis. To these very obvious and immediate complications must be added those that are liable to arise from the bruising and stretching the iris has to undergo during the passage of the lens through the pupil, and whose advent may be looked for from the seventh to the tenth day. Although we have not yet exhausted the adverse possibilities that must be weighed before we decide to adopt the so-called simple method of extraction, their enumeration is scarcely necessary when we consider the very striking admission made by Mr. Teale at the Leeds meeting last year, when he said: "Given a patient with only one eye, and that one affected with cataract, I should perform an iridectomy, being content to forego a little extra brilliancy in result to greater probability of successful operation." Knowing that Mr. Teale was one of the very earliest of British surgeons to relinquish iridectomy, and has had perhaps more experience than any other oculist of this operation, it appears clearly our duty to give our patients the best chance for recovery of a sound eye, and this by iridectomy.

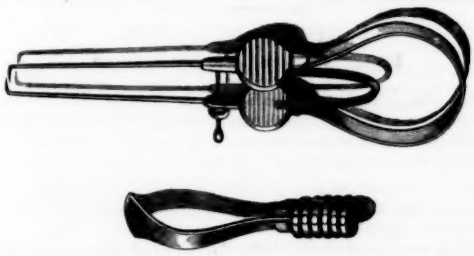
The third stage—laceration of capsule—I only stay to mention this stage.

Fourth stage: delivery of lens.—This is accomplished by a gentle pressure applied to the lower edge of the cornea; in some few cases, owing to the corneal incision being rather small, or from some other cause, the lens sticks at its equator, and to avoid undue pressure I have used the tractor which is figured below. It was made for me by

[1] Read before the Chester Medical Society, April 11th, 1890.

Messrs. Weiss, and its application is as simple as it has been gratifying.

Fifth stage, usually termed "the toilette of the wound," includes much more than might be presumed from its designation. Not simply is it concerned in clearing the edges of the incision from blood and débris, but also freeing the area of the pupil from any soft lenticular matter that is apt to remain, and give rise to secondary cataract. Various expedients are employed to remove these particles of cortical matter. Great reliance is placed upon digital or instrumental pressure applied either directly to the cornea, or from the outside of the lid. A grave objection to this procedure exists in the fact that even when it is most delicately conducted a rupture of the hyaloid not infrequently occurs, and escape of vitreous follows; besides, it is often ineffectual. To Dr. McKeown of Belfast belongs the credit of introducing a novel and most effective method of clearing away cortex — viz., by introducing fluid into the capsule of the lens. He published his first series of cases in 1884. The instruments he recommended for injection of the fluid were hollow needles and syringes. Early in 1886 I used McKeown's syringe on two occasions, and these sufficed to show me that, whilst we had a most useful line of practice indicated, the means used for carrying it out were unsatisfactory. Accordingly I replaced the jerky and unsteady flow of the syringe by the equable and controllable flow obtained by a very simple irrigation apparatus. This was fully described at the Brighton meeting of the British Medical Association in 1886. Since then I have continued to use the same simple apparatus, having, however, slightly modified the terminal. The accompanying figure shows the one now in use. I have employed irrigation on more than thirty occasions, always with satisfaction and, I believe, with benefit. The thoroughness with which the irrigator clears away the soft matter is really remarkable. Having by this method secured a black coloboma, and the patient being able to count fingers held in front of the operated eye, it only remained to clear the conjuctival sac from any débris of blood &c. The outside of the eyelids are usually dredged with iodoform powder, and double pads of Gamgee's lint secured over each eye with strips of plaster. Finally, a roller bandage is fixed over all, the patient removed to bed, where he remains till the eighth day. Many ophthalmic surgeons do not disturb the dressings for a week, unless warned by pain that something is amiss; but as I have seen more than one cornea slough painlessly, it is my custom to remove the pads the day after the operation and replace them by clean ones; the eyelids need not be opened unless there is some redness, swelling, or discharge visible. Should there be anything to arouse suspicion, the lids are opened and an inspection of the wound is made; if now, or at a later period, there are any signs of sloughing, we irrigate the whole of the anterior chamber with an antiseptic fluid, and believe that by these means we have saved from utter destruction one case at least which had the ostrich-like policy of trusting all was going on right because we could not see the untoward processes that had already commenced would undoubtedly have been destroyed.



The judicious application of antiseptics to ophthalmic surgery has long been aimed at by oculists; at the Liverpool Eye and Ear Infirmary we use a solution of biniodide of mercury known as "panas." The instruments to be employed in the operation are immersed in this solution, and the patient's face, as well as the conjunctival cul-de-sac, are thoroughly laved with it.

In conclusion, I beg to acknowledge the kindness and skill of Mr. H. E. Jones, assistant surgeon to the Liverpool Eye and Ear Infirmary, in making sketches of the instruments.

Liverpool.

ON A CASE OF POISONING BY NICOTINE.

BY G. STILLINGFLEET JOHNSON, M.R.C.S., F.C.S.,
DEMONSTRATOR OF CHEMISTRY AT KING'S COLLEGE, LONDON.

A TEMPERATE man, aged seventy-five, was found on a doorstep with his throat bleeding, having thrown from him a bottle, and with a greenish vomit on the ground near him. A paper was in his hand, bearing the words "I did this myself." A knife was also near him. He was taken to King's College Hospital, where the bleeding was found to proceed from a divided external jugular vein, which was at once ligatured. Preparations were then made to empty the stomach, but during attempts to adjust the tube of the stomach-pump, which the man resisted actively, he suddenly died, without convulsions. At the necropsy there were no signs of the action of any irritant poison, and the only abnormality observed in any organ was a slight degree of mitral constriction. This being so, and the amount of blood lost being, in the opinion of the house surgeon, quite insufficient to account for death, the stomach and its contents were preserved, and by order of the coroner, Dr. J. Troutbeck, were brought to me for chemical examination. I received the stomach, tied at the œsophageal and pyloric orifices, also a small piece of small intestine, tied at each end; the whole immersed in spirits of wine in a well-stoppered glass bottle. The alcoholic liquor was reserved for separate examination. The contents of the stomach measured rather more than 2 fluid oz. (60 cubic centimetres). It was a brown grumous fluid, with a feebly acid reaction to litmus paper. It was easily filtered through paper, the insoluble matter being preserved for further examination. The clear filtrate was tested for poisonous metals with a negative result, but it gave the brown precipitate with a solution of iodine in iodide of potassium, characteristic of a vegetable alkaloid. The clear liquid was now rendered slightly alkaline with ammonia, stirred and set aside for a time to favour precipitation. A flocculent precipitate formed at once after adding the ammonia, but did not appear to increase on standing. The precipitate was now separated by filtration, and well washed with cold water. The clear ammoniacal filtrate was tested for alkaloids by acidulating a small portion with hydrochloric acid and adding a solution of iodine in potassium iodide. The alkaloidal precipitate formed as abundantly as ever. On the other hand, the precipitate produced by addition of ammonia to the fluid from the stomach after solution in hydrochloric acid gave only a slight opalescence with solution of iodine in potassium iodide. These results indicate the existence of a soluble vegetable alkaloid. In order to separate the soluble alkaloid from the other substances in the watery solution the clear ammoniacal filtrate was shaken with chloroform. The chloroform separated fairly well from the watery solution, from which it was drawn off by means of a stoppered funnel, and evaporated cautiously over steam. A yellowish oil remained in the dish, whose odour, especially when the dish was warm, was highly penetrating, stinging the nasal membrane like ammonia, and recalling the odour of a foul tobacco pipe. The weight of this oil obtained from 30 c.c. (= one fluid ounce), or half of the stomach contents, was 3 centigrammes (= $\frac{1}{16}$ths of a grain). The oil dissolved almost entirely in water, only a little resinous matter remaining, and its aqueous solution reaction was intensely alkaline to litmus. The aqueous solution was acidulated with hydrochloric acid, and the acid liquid evaporated to dryness over steam. The residue gave an acid solution to water, so that the base forms a hydrochloride. A portion of the solution of the hydrochloride of the alkaloid was rendered alkaline with potash, and the solution was warmed; a strong tobacco-like odour was developed. A second portion of the solution of the hydrochloride of the alkaloid was mixed with an aqueous solution of mercuric chloride, when immediately a copious white precipitate formed, which dissolved on being warmed, and deposited in well-formed crystals on cooling. This reaction proves the absence of coniine, which gives an amorphous precipitate with $HgCl_2$. The above reactions all indicate that the soluble oily alkaloid is nicotine.

I now turned my attention to the alcoholic liquor in which the stomach had been preserved. The filtered liquid was evaporated to dryness over steam, when a copious solid residue remained. The residue was extracted with acidulated water, and the solution gave strong indication of the presence

of alkaloidal matter when tested with the solution of iodine in potassium iodide. The alkaloid was found to be soluble in water, and was extracted from the aqueous solution by chloroform, just as in the case of the contents of the stomach described above. The residue, on evaporating off the chloroform, had precisely the same properties as that from the stomach contents, but the quantity of the oily liquid obtained was far greater—viz., 0·188 gramme (=2·9 grains). This residue was converted into oxalate by adding excess of oxalic acid to the aqueous solution and evaporating to dryness. The residue was then boiled with absolute alcohol, which dissolved the oxalate of nicotine; filtered alcoholic solution was evaporated to dryness, the oxalate dissolved in water, the solution rendered alkaline with potash and shaken with chloroform. The chloroform solution yielded on evaporation the pure nicotine, paler in colour than the original oil, but otherwise quite similar in properties. Of this purified alkaloid, 2 centigrammes (= $\frac{2}{10}$ths of a grain) were injected in the state of aqueous solution into the pleural cavity of a large rabbit by my friend and colleague Mr. C. J. Martin. Almost instantly the animal was thrown into violent convulsions, during which it turned a complete somersault, and was observed to be in a state of extreme opisthotonos as soon as it reached the ground. This condition was rapidly followed by general muscular paralysis and relaxation, and the breathing stopped within three minutes after the exhibition of the poison. The thorax being opened at once, only fibrillar contractions of the heart were observed. At the adjourned inquest before the deputy coroner, Mr. H. E. Barnes, a relative of the deceased having heard my evidence, and my suggestion founded therefrom, that the deceased might have made an infusion of tobacco in some alcoholic liquor, and taken the mixture, informed the coroner that "in conversation the deceased had told him that that was how he meant to do it," from which it would appear that the man was cognisant of the highly toxic nature of tobacco infusions. As the bottle which the deceased threw away was broken, no clue whatever was given to me as to the nature of the poison. As regards the absence of convulsive movements in this case, such movements appear not to be invariably produced by tobacco intoxication in the human subject. Tetanic convulsions were present in one case recorded by Taylor, but absent in another. Possibly the quantity of the poison taken may account for these different effects, for no convulsion took place in the case observed by Taylor himself, where a man swallowed pure nicotine from a bottle, and died within five minutes.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF SPORADIC CRETINISM.

BY ARNALLT JONES, L.R.C.P. LOND., M.R.C.S. ENG.

THE following notes refer to the case of R. G——, who suffered from sporadic cretinism, and died at the age of two years and a half, having been under my observation for nearly two years. I was first consulted when the child was ten months old, because the parents were alarmed about the condition of his tongue, which had grown large and unwieldy, protruding constantly through the lips and threatening to interfere with respiration. The child certainly had macroglossia, but he also had a cretinoid appearance. When seven months old he was able to stand upon his legs and also to articulate "dadda" and similar nursery calls, and he took an interest in things that went on around him. When nine months old, however, he commenced to have violent fits of crying, and a blight seemed to come over the child. The tongue now started growing till it protruded through the lips, keeping the mouth constantly wide open. After he reached the age of nine months he ceased to grow, and his appearance became very striking. The hair was coarse and scanty; the skin thickened, rough, and scaly in parts, the forehead shallow and face wide, the nose broad and flat, the lips thick, with a wide open mouth constantly dribbling saliva, while the features were utterly devoid of expression; the hands were broad and rough-skinned, and the fingers stumpy. No trace of the thyroid gland could be made out, but there was a mass of fat in each supra-clavicular triangle. Some stress was laid by the late Dr. Hilton Fagge upon the presence of these collections of adipose tissue in this situation, and in this particular case these fat collections were at one time nearly the size of a hen's egg, but during the last few weeks of the patient's existence they dwindled down to the size of a pigeon's egg. The teeth were late in appearing; they were friable and ill-formed and crumbled away early. The child was subject to violent fits of crying; these came on at varying intervals, and if he once started he would go on perhaps for hours at a stretch. Otherwise, he accepted his fate in a placid, indifferent manner. Three days before his death violent coughing came on with hæmoptysis. The child died suddenly in convulsions, and, unfortunately, this event occurred during my absence on a holiday; consequently a necropsy was not obtained. The actual cause of the disease in this case is difficult to ascertain. The water drunk by the family was not impregnated with the salts of lime or magnesia; their house is built on pennant rock (sandstone), which here is some hundreds of feet in thickness; there was no consanguinity on the part of the parents, and no specific history on either side. The father was addicted to intemperance at times, a fact which would carry some weight with those who accept a theory as to the etiology of sporadic cretinism suggested by Dr. Langdon Down. This disease has been noticed more than once in several children of the same parents; and here that is likely to be the case, as a younger child of this family is at the present time developing some of the symptoms of incipient cretinism.

Aberavon, Glamorgan.

XANTHOMA MULTIPLEX.

BY G. C. STEPHEN, L.R.C.P. LOND.

ON consulting Dr. Crocker's book on Diseases of the Skin, I find that only forty cases of xanthoma multiplex occurring after puberty have been recorded. I therefore trust the following notes of the case of a patient who recently consulted me for brow neuralgia and jaundice, associated with that interesting affection of the skin xanthoma multiplex, may prove of interest.

Miss ——, aged sixty, states that she had always enjoyed fairly good health until from two to three years ago, when she suffered a good deal from bronchial and nasal catarrh and diarrhœa; but from these she appeared to have quite recovered until she was taken ill in November last with supra-orbital neuralgia and erysipelas of the right side of the face. In January, patches of xanthoma appeared on the hands, feet, wrists, and face, followed in a short time by very intense jaundice. As the patient was at this time residing in a malarious district of America, I think the jaundice was attributable to the malarial cachexia there acquired. When I first saw her, May 26th, 1890, there were numerous buff-coloured patches on the palms and backs of the hands and wrists, and in the flexures of the elbows and knees; also on the face there were several patches not raised above the level of the skin. The lesions on the hands and feet were from about the size of a grain of wheat to that of a threepenny piece. Some were perfectly flat, and on passing the fingers over them no protuberance was noticeable (xanthoma planum). Others, however, were slightly raised above the level of the skin (xanthoma tuberosum). The subjective symptoms were severe itching, particularly at the time of the formation of new lesions. I have repeatedly examined the urine without discovering any trace of sugar. Under anti-malarial treatment, and drachm doses of phosphate of soda three times a day, the jaundice has improved very much, and the irritation of the skin and neuralgia have almost entirely disappeared. The patient feels confident that some of the patches of xanthoma have disappeared, but I cannot say that I have noticed more improvement than that they have become less raised above the level of the skin. The patient's statement is no doubt important, however, in view of the fact that Mr. Jonathan Hutchinson, in a recent number of the *Archives of Surgery*, reports a case with symptoms very similar to those of my patient, in which xanthoma diabeticorum was suspected from the irritating character of the

lesions &c., although no glycosuria was discoverable, and in which he thinks there was sufficient improvement in the lesions to warrant a more hopeful prognosis being taken of the disease than the available statistics would lead one to suppose.

Sutherland-avenue, W.

SIMULTANEOUS DISLOCATION OF BOTH SHOULDER-JOINTS.

By T. W. J. ALLEN,
HONORARY SURGEON TO THE GRIMSBY HOSPITAL.

IN connexion with the accounts of simultaneous fracture of both clavicles, recently published in THE LANCET, I think the following case worth recording.

A young man, aged twenty-four, works on the Fish Dock, driving a cart, and packing fish. Within the last four years he has from different causes dislocated the right shoulder four times and the left shoulder three times, and on each occasion came under my observation. Ten days ago I was called in to see him, and found him suffering from a subcoracoid dislocation of both joints. He said that on getting hurriedly out of bed to assist an invalid brother he turned faint and fell, and upon recovering his senses found both his shoulders "out." I had no difficulty in reducing the deformity by the heel in each axilla in the usual way.

Great Grimsby.

CASE OF TRISMUS NEONATORUM.

By J. C. O'SULLIVAN, L.R.C.P.E., &c.

ON the night of July 3rd I was called to see the child of Mrs. H——, who gave it birth four days previously. The jaws were rigidly fixed and the finger could not be introduced into the mouth. There was a deep ridge on the forehead, giving the face an expression of frowning. The angles of the mouth were drawn outwards. The temperature was normal, and the umbilical cord had healed healthily at the place where it was divided. I told the patient's friends that tetanus was probably impending. The routine modes of treatment, warm baths, &c., were ordered to be tried. Convulsions came on the following morning at 2 A.M. These were strong, rigid, and continuous. The fingers were clenched on the palm, the back arched, abdomen upwards, and the head thrown back. There was much lividity, and the convulsive movements occurred five or six times an hour. The child died this morning (July 5th). There was no defective sanitation or other recognisable cause to explain the disease. The mother has been, and continues to be, healthy.

East-street, Walworth, S.E.

FIBROID TUMOUR OF THE CERVIX UTERI.

By PERCY BOULTON, M.D., M.R.C.P.LOND.,
PHYSICIAN TO THE SAMARITAN FREE HOSPITAL.

THE rarest position for a mural fibroid is in the cervix below the os internum, and the following is the report of a typical case which has recently been under my care.

F. C——, married, aged thirty-six, had been suffering from severe hæmorrhage almost continuously for six months, and when not bleeding had a copious discharge, with debility and backache. She had been seen by several practitioners who had told her she had a tumour, but a distinct diagnosis had not been arrived at. On exploration the vagina was found to be occupied by a tumour, more or less oval in shape and as large as a goose's egg. It clearly was not a polypus, as no encircling cervix could be felt, and the tumour first suggested to my mind a complete inversion of the uterus. High up in front above the pubes, a slit-like depression like an ordinary button-hole from ½ in. to ¾ in. in length could be felt. I thought this might be the os, but to clear up the idea of inversion, I passed my finger into the rectum when the diagnosis was at once made apparent, for the uterus could be distinctly felt above the tumour, which was found to be entirely in the cervix By the bimanual process this was confirmed, though not so unmistakably as by rectal examination, as the patient was fat. I then dilated with my finger what I had supposed might be the os. The anterior lip was exceedingly thin and the posterior lip effaced by the tumour, so the finger passed backwards over its convex anterior surface. I made an incision with the cautery knife down the centre of the tumour, beginning at the os, and enucleated the growth, and the patient has made a good recovery.

The case is interesting because it is uncommon, but especially from a diagnostic point of view, for if the growth had been mistaken for a polypus, and it had been removed by the écraseur, Douglas' pouch would certainly have been opened; while if it had been treated as an inversion, the attempts at reposition might have led to pelvic inflammation or other trouble.

Seymour-street, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

CHARING-CROSS HOSPITAL.

CALCULOUS PYELITIS; RIGHT NEPHRO-LITHOTOMY; PELVIC ABSCESS; RECOVERY.

(Under the care of Mr. BELLAMY.)

REPORTS of all cases requiring operation on the kidney are of the greatest clinical value, and an accurate record should be taken of every condition and symptom, for we are but on the borderland of perfection in kidney surgery. Hardly any two cases are alike, and we learn from each, either from error or success. We think the case here reported of peculiar interest. The extreme difficulty of the operation, a peritoneal wound (absolutely unavoidable), the immense protrusion of bowel, and, as Mr. Bellamy suggested, a possible abnormal position of the organ, made the case a very unfavourable one. The subsequent pelvic abscess was possibly the result of the wound of the peritoneum, but, as will be seen from the notes, owing to the length of time after operation at which it appeared, this is doubtful. For the notes of the case we are indebted to Mr. Da Costa, surgical registrar.

T. L——, aged forty-one, a messenger, was admitted on March 18th, 1890. Had always been well. Enjoyed good health as a boy until sixteen years of age, when he was struck over the right loin, after which he was laid up in bed for ten days, for five days of which he suffered from hæmaturia. He recovered from this completely as far as he remembers, but had a slight return of hæmaturia eighteen months afterwards following unusual exertion. He was quite well until 1879, when he noticed a mucous deposit in his urine (in 1870 he had an attack of gonorrhœa, followed by swollen testicles; this attack lasted only ten days), which was ascribed by a surgeon to cystitis. He then went to Guy's Hospital, where he was treated in the wards for cystitis. He was under treatment for four months. The deposit has gradually been increasing and getting thicker. Four months ago he had bronchitis, and was then advised to wash out his bladder with boro-glyceride, a drachm to half a pint of water, twice daily. He did not derive any benefit from this. Four weeks ago he saw a surgeon, who sounded him for stone, but did not find any. Mother died of asthma when fifty. Father died of old age. All his brothers and sisters were healthy, no relative dying either of cancer or phthisis. The patient is well nourished. Heart and lungs are healthy; pulse 68; temperature normal. Urine: (*a*) Frequency. Passes urine four or five times daily, not at all during the night. (*b*) Character of stream: Passes a fair-sized stream, with good impulse. (*c*) Pain: Has slight pain on passing urine, especially at the end of micturition. Stream does not stop suddenly; with the first and last part of the stream urine comes away with a white turbidity. Patient has not passed any blood for the past twenty-four years. Examination of urine: Cloudy, and on standing yields considerable deposit; the odour is not offensive; sp. gr. 1012; slightly acid; contains about one-sixth albumen. Under the microscope it contains a large quantity of pus. The patient has

tenderness on pressure over the right lumbar region. On rectal examination the prostate gland seems somewhat large and tender.

March 24th.—Complains, as stated, of sharp pain in the right lumbar region when pressed upon in that situation. There is distinct dulness over the back on the right side from the spinal column to a line from the most prominent point of the crest of the right ilium to the last ribs. This dulness is marked as compared with the other side. Nothing definite can be felt in the right lumbar region owing to rigidity of the muscles.

25th.—*Operation:* The patient having been anæsthetised and antiseptic precautions taken, Mr. Bellamy made an exploratory puncture with an aspirator into the right lumbar region, but with no result. A second puncture slightly lower down was followed by the rush of a small quantity of watery pus into the vacuum bottle. Mr. Bellamy then withdrew the needle and made an incision slightly oblique just below the last rib, about four inches in length, the posterior extremity of the incision corresponding to the edge of the erector spinæ. The incision was then carried through the abdominal parietes down into the peri-renal fat. In this stage of the operation the first lumbar artery was divided and tied. The edges of the wound being retracted, the kidney was found with some little trouble. Mr. Bellamy then inserted an exploratory needle into the kidney and detected the presence of a stone. He then incised the kidney, when there was free hæmorrhage; through this opening he extracted a calculus about the size of a walnut with lithotomy forceps. The capsule of the kidney was not sutured to the skin; the deep muscles, however, were sutured and a drainage-tube was passed into the opening of the kidney through the upper portion of the external wound, which was sutured with horsehair and dressed with sal alembroth; the dressing was kept in position with an elastic bandage. The patient lost a considerable quantity of blood. During the operation the peritoneum was wounded and the intestine exposed. He passed a restless night. He had a dose of ten grains of chloramide and also a hypodermic injection of two minims of morphia. He vomited frequently and suffered much pain. Dressing has had to be changed three or four times. Temperature normal; pulse 120; urine, sp. gr. 1024, contains one-sixth albumen; has passed sixteen ounces. He seems suffering from shock; his pupils are unequal.

26th.—The patient had a better night after the morphia injection. Complains this morning of abdominal pain, which is being treated with hot fomentations. He has also had an enema this morning, which so far has been retained. He has not vomited since the night before last. The temperature last night was 100·4°, this morning it is normal; pulse 102. This morning he has been passing his urine frequently. Urine has an acid reaction, contains no blood, and hardly any albumen; fourteen ounces passed in twenty-four hours.

27th.—Hiccough very troublesome since yesterday evening. Tympanites markedly increased, especially on the right side in the iliac fossa, which is very tender; pulse 108, firm and regular; tongue dry in the centre and brown. He complains of great thirst, inability to take a deep breath or cough on account of abdominal pain, and feels weak. The enema yesterday did not act, and five grains of calomel were given, which had no effect in clearing the bowels, so an enema of olive oil was ordered. Temperature last night 100°, this morning 98·4°. Urine is normal in amount, contains no albumen; sp. gr. 1024. Micturition not too frequent. Respiration 36. Ordered one minium of croton oil, to be followed by two minims in an hour, and one-fifth of a minim at intervals of a quarter of an hour afterwards if necessary.

28th.—This morning he feels better. Had a bad night, suffering from pain in the stomach and hiccough. Wound dressed with hot boracic compresses; looks healthy, but discharges some sanguineous pus. Abdomen less tympanitic and tender. Tongue covered with fur, getting brown in the centre, and somewhat dry. Pulse 104, soft and regular; temperature 99·4°; respiration 32. Urine contains phosphates; sp. gr. 1026; no pus, no albumen. He passed three copious, loose motions yesterday evening.

29th.—This morning he is troubled with a bad cough, attended with some muco-purulent expectoration; his cough causes him abdominal pain. During the last twenty-four hours his bowels have acted six times, and the motions are loose and copious. Respiration 30; pulse 104, regular; temperature last night 99°, this morning 100·4°. Urine acid; contains a trace of albumen; sp. gr. 1022.

31st.—The patient's general condition is much improved this morning, he has lost the anxious expression of face; abdominal tenderness in right iliac fossa much less; tongue much cleaner. Temperature 99°; pulse 96, regular in force and rhythm, and compressible; respiration 28; hiccough still very troublesome, interfering with sleep; cough and expectoration have been greatly relieved by an expectorant mixture. When he coughs the pain is worst in the epigastric region.

April 1st.—The patient looks and feels much better this morning. Temperature at 2 A.M. 100·4°; at 10 A.M. 98°; pulse 88; respiration 24. Tongue clean, cough and expectoration gone. Abdominal tenderness is less; hiccough still troublesome. Was ordered thirty grains of bromide of potassium.

4th.—Temperature 99·8°; pulse 100, regular; tongue furred and dry; hiccough gone. He has boracic fomentations every three hours, has pain over the wound also in the right thigh. He has no desire to pass his urine through the urethra.

7th.—Respiration 28; pulse 100; tongue moist. Complains of constant discharge of urine through the wound, which is now dressed with dry boracic. He has slight abdominal tenderness in the right iliac fossa. Temperature this morning 98·8°, last night 100°.

10th.—Wound has been suppurating for some days, is washed with lotio rubra.

15th.—To-day the patient reclines on a sofa for the first time; not so much urine flows from the wound, he still has tenderness in the right iliac fossa. Temperature last night 100·6°, this morning 98·6°.

23rd.—The temperature has been very irregular since the last note; a tube was inserted into the lumbar wound this morning.

30th.—He has a firm swelling in the right iliac fossa, which is tender; no distinct fluctuation can be made out. Temperature keeps erratic. In the afternoon, Mr. Bellamy made an oblique incision about two inches long and half an inch internal to the anterior superior spine. This was gradually deepened and the sinus forceps forced through what was felt to be a fluctuating swelling at the bottom of the wound. On opening out the forceps exit was given to a large quantity of pus. A sound was passed through the abscess cavity and made to project close to the superior angle of the nephro-lithotomy wound. This was cut down upon, and a large drainage-tube inserted into each wound.

May 5th.—The upper tube removed yesterday; temperature coming down to normal.

8th.—Smaller tube substituted for the remaining one.

15th.—No tube is now used; the posterior opening is still patent; urine escapes at this point.

19th.—All anterior wounds are now healed. To-day the discharge of pus has ceased.

He was discharged cured on May 24th.

EASTERN FEVER HOSPITAL.

HERPES WITH TONSILLITIS MISTAKEN FOR SPECIFIC FEVERS.

(Under the care of the Superintendent, Dr. COLLIE.)

THE following cases were sent to this hospital during the year 1889, certified as diphtheria, scarlet fever, or enteric fever. Although herpes is occasionally met with both in scarlet fever and diphtheria, it is far from common, and it is unlikely that any of the cases were abortive forms of those diseases. In one case the brother was sent up on the following day with well-marked lobar pneumonia. In all the cases the initial symptoms appear to have been severe and sudden, and to have resembled those of the specific fevers. In five cases the sore-throat was among the first of the symptoms. In one case the herpes appeared on the second, in three on the third, and in two on the fifth day of illness. Vomiting occurred in four of the cases. Case 4 appears to have had a tendency to erythematous eruptions. Records of similar cases are found in the medical journals: Dr. Ingleby-Mackenzie[1] and Drs. Cole and Fowler in the same year. For the notes of these cases we are indebted to Mr. H. E. Mann.

CASE 1.—E. T——, male aged nine, on Nov. 16th was well in the morning; at midday he left school with sore-throat, followed by vomiting. The next day he was sent to the hospital certified as suffering from diphtheria. There was no herpes.

Nov. 18th.—The left tonsil is slightly enlarged and shows several minute white spots. Round the inner surface of both cheeks, at the level of the lower border of the upper teeth, is a raised, grey, glistening ridge, but no vesicles; profuse eruption of herpes on both sides of the lower lip. Lungs and heart are normal. Temperature 97·8; no albumen in the urine.

20th.—Temperature normal till yesterday evening, when it rose to 99°. This morning 101·6°. Soft palate and fauces much injected. No deposit.

21st.—Temperature normal. The throat gradually improved, and there was no recurrence of the pyrexia.

CASE 2.—J. P——, a male aged eighteen. On Oct. 28th he had headache and sore-throat, and on Oct. 30th was admitted to the hospital certified as suffering from diphtheria.

Oct. 31st.—The soft palate and arches of the fauces are much swollen and dark red in colour. The tonsils are depressed and show several white spots but no membrane. Temperature 100°. He appears well.

Nov. 1st.—Temperature normal. Two white spots on the right tonsil; throat less swollen; crops of herpes on the left ala nasi, the right cheek, and both sides of the lower lip, including the mucous membrane; in the urine there was a trace of albumen.

2nd.—Gums swollen and œdematous; along the upper border of the lower gum is a white film which can be brushed off in small membranous pellicles.

3rd.—The temperature remains normal. No more herpes.

4th.—The gum round the lower molar teeth of the right jaw is raised, white, and glistening, as if from exudation. No fresh symptoms occurred.

CASE 3.—R. C——, a male aged eleven, complained on Sept. 8th in the morning of headache and sore-throat. In the evening he had vomiting. On Sept. 9th he was admitted, certified as suffering from diphtheria.

Sept. 10th.—Throat and tonsils red and swollen; no membrane; herpes on lip; lungs normal. Temperature 100° to 101°.

11th.—Throat normal. Temperature about 100°.

12th.—Temperature normal. No other symptoms.

CASE 4.—A female aged eight. A month before admission she had a bright-red rash all over the body. Went to a hospital where it was diagnosed as scarlet fever. Had been in bed at home since. On April 27th she had sore-throat. Was admitted to the hospital on the same day, certified as suffering from diphtheria. The left tonsil was then enlarged, and showed several small dots of deposit and one somewhat larger patch.

April 28th.—Both tonsils are enlarged, and show small white dots which appear to exude from the follicles. At the junction of the uvula and anterior arch of the fauces is a small clear vesicle. A small white adherent speck of deposit is also seen on the mucous membrane of the right cheek; also a crop of herpes on the lower lip. Lungs and heart normal. Temperature 100° to 101·5°; respiration normal; pulse 100; urine, a faint cloud of albumen. The patient appears very well.

29th.—Small white filmy patches on the gums of both sides. Gums are white, glistening, and œdematous, and bleed easily. Temperature normal. The patch on the right cheek is now gone.

30th.—No deposit on the tonsils. The temperature remains normal. Urine contains no albumen.

May 19th.—Yesterday afternoon the child appeared perfectly well, and was running about. The nurse noticed her cheeks were flushed, and then discovered a bright general punctate rash resembling scarlet fever, which in half an hour became a red, confluent flush. Temperature 99° at 4 P.M., but fell to 97° at 10 P.M. No vomiting or feeling of illness. The rash, which almost disappeared during the night, has reappeared. Temperature 99°. Throat a little injected, but no sore-throat.

23rd.—Rash just present. Till the 22nd the temperature had occasionally been as high as 99°, but not higher.

24th.—Rash gone.

30th.—General powdering over the chest.

June 19th.—Some desquamation on the hands. Never any albuminuria. It seems hardly likely that either of the two eruptions which the child had was due to scarlet fever, although desquamation followed the second.

CASE 5.—H. J——, male, aged fourteen. On Nov. 30th he shivered all the morning, and was admitted in the evening, certified as suffering from scarlet fever. No rash; throat injected; temperature 101·6°.

Dec. 1st.—Temperature normal.

2nd.—Has herpes on the lower lip; lungs normal. Temperature never again rose; no recurrence of herpes; no desquamation.

CASE 6.—This patient was admitted on June 18th, certified as suffering from scarlet fever.

June 19th.—Throat normal; no rash; temperature 101°. Appears drowsy and ill; vomited twice yesterday, and once this morning. Lungs and heart normal.

20th.—Temperature 99·5°. Herpes on upper lip and nose. Lungs normal. Temperature normal.

This patient's brother was admitted yesterday, also certified as scarlet fever, but suffering from well-marked pneumonia; no sign of scarlet fever.

CASE 7.—W. L——, a male, aged seventeen. On Oct. 5th he complained of pains all over, and had vomiting. The next day he felt well in the morning, but in the afternoon had sudden shivering. On the 7th he shivered all day, and was admitted in the evening certified as suffering from enteric fever.

Oct. 8th.—Abdomen, lungs, and heart normal; light cough; ocular conjunctivæ much injected by minute vessels; fulness and tenderness at right angle of jaw; throat red and a little swollen; temperature 103° to 104°; urine, no albumen.

9th.—Much pain in the head and neck; throat much swollen; temperature 100° to 103°.

10th.—Much pain in the right eyeball; throat less swollen; no cough; a profuse crop of herpes covers the upper and lower thirds of back of left ear; temperature 99° to 101°

From the 11th to the 14th the temperature ranged from 97° to 101°.

15th.—Temperature normal; no recurrence of herpes or pyrexia; never any diarrhœa.

Notices of Books.

Annual Report of the Marine Hospital Service of the United States. Washington. 1889.—Supervising Surgeon-General J. B. Hamilton gives, in this the sixteenth annual report, much pathological and statistical information specially connected with his department, together with very valuable papers on yellow fever. In the first ninety-nine pages are detailed accounts of the 1888 epidemic. Dr. Sternberg's report upon the prevention of yellow fever by inoculation (pp. 133–239) is worthy of the author's deservedly high reputation. Selected cases from hospital practice follow, introduced by a summary of 168 cases of enteric and remittent fevers, the result of a "collective investigation" attempt to gain precision in the record of these diseases. Small progress is to be looked for in this way, for of eleven necropsies in the enteric group four are said to be without intestinal lesion—the one character of the so-called typho-malarial fever as observed at Suakim. Drs. Guitéras and Fagét, names well known in yellow fever pathology, show by numerous charts of the pulse and temperature in that disease how constantly the pulse lessens in frequency before the temperature falls. Some quarantine reference at p. 50 is worth notice. Dr. Guitéras was ordered by the Marine Hospital Service to select a "probation" station for Georgia and Florida. For two days and nights he had to shelter in woods and railway sidings from "shot guns," and other threats from various places, before he could fix upon Camp Perry, about forty miles north of Jacksonville. This camp was opened in August; in the next month there was accommodation for 600 people at one time, and, allowing ten days for quarantine detention, for 3000 in the month. Twelve cases of yellow fever were received for treatment, and twenty-four developed after arrival in camp. Not a case of fever was contracted on the grounds. Twelve hundred

persons, after ten days' detention, left for different parts, and not one of them, as far as known, carried or developed fever afterwards. Dr. Sternberg's conclusions are already known to be unfavourable to the prophylaxis of yellow fever by inoculation. He here states that although yellow fever is due to a living micro-organism capable of development external to the human body, and of so establishing new centres of infection, and that as a single attack of yellow fever protects from a recurrence, there is reason to hope that a similar protection would result if any method were discovered for inducing a mild attack by inoculation or otherwise, yet no such means have been so far successful, and no specific micro-organism has been found in the blood. He is opposed to the view that the germ, multiplying in insanitary localities external to the body, produces a volatile poison contaminating the air. The long incubation period (from two to five days) is against this possibility.

Humanitism, the Scientific Solution of the Social Problem. By W. A. MACDONALD. London: Trübner and Co., Ludgate-hill.—Mr. Macdonald's book embraces a wide area. Religion, political and social economy, means of subsistence, laws of morality, and other matters are included in it. His aim is to place the whole scheme of life on a "scientific basis," as opposed to the present economic system, in order to meet the needs of an ever-increasing population. To this end he suggests, curiously enough, that clothing should be dispensed with, as distinctly injurious, physically as well as morally, and that a strictly vegetarian diet should be employed, all foods being eaten raw, the staple foods consisting of fruit, nuts, vegetables, and roots. He is very hard on the Medical Council, remarking that "the first step towards founding a science of population is to snuff out that prince of humbugs, the Medical Council." Mr. Macdonald's book may be characterised as distinctly ingenious, though he is not at all likely to succeed in convincing "humanity," or even "scientists," that he has solved the social problem.

Journal of Anatomy and Physiology. Conducted by Professors G. M. HUMPHRY, Sir WILLIAM TURNER, and J. MCKENDRICK. Vol. XXIV., Part IV., July, 1890. Williams and Norgate.—The chief articles contained in this part are: 1. Henry A. Thomson on Acromegaly. 2. Professor F. Smith on the Histology of the Skin of the Elephant. 3. W. Aldren Turner: A Contribution to the Pathology of Retrobulbar Neuritis. 4. Joseph Tillie, M.D.: A Contribution to the Pharmacology of Curare and its Alkaloids. 5. Dr. Walter K Sibley: Nature of Giant Cells of Tubercle. 6. Thomas Dwight: The Sternum as an Index of Sex, Height, and Age. 7. R. Schufeldt, M.D.: Continuation of his contributions to the Comparative Osteology of Arctic and Sub-arctic Water Birds. 8. Mr. John Poland: Variations of the External Pterygoid Muscle. 9. W. Carlier: The Fate of the Notochord in the Sheep. 10. J. Cagney: Disposition of the Vertebral Column in Hanging. 11. Professor Humphry: The Pathology of Genu Valgum. 12. Professor W. Stirling: Some New Histological Methods. This number completes the volume.

Archives de Neurologie. Edited by M. BOURNEVILLE. Vol. XX., July, 1890.—The current number of this journal contains:—1. An article on Hysterical Stammering, by MM. Gilbert, Ballet, and Tissier. 2. A Clinical Lecture by Prof. Grasset on Habit Spasm and Tremors. 3. A continuation of M. Francotte's Pathological Observations on the Spinal Cord in cases of Syringo-myelia, Multiple Sclerosis, &c. 4. A Case of Tetanus occurring in an Epileptic, by M. Camuset. 5. A Pharmaceutical Note on Phosphorus and suitable modes of administration in Nervous Diseases. 6. A Review of Recent Literature on Neurology, the most interesting abstracts being on Disturbances of Equilibrium in two cases of Parietal Tumour, and on cases of Paramyoclonus Multiplex. 7. Abstracts of Proceedings of Continental Societies devoted to Neurology.

Sick diet and Applications; a Pamphlet for every Home. By F. W. CORY. Third Edition. Pp. 8. London: Simpkin, Marshall, and Co. 1890.—This little work, the first edition of which we noticed very favourably, has been considerably improved, and will be found very useful in families where there is any sickness. From its low price (1*d*) and the clearness of the instructions, it appears remarkably well adapted for distribution by district visitors.

New Invention.

A VAGINAL SYRINGE CUP.

THE vaginal syringe cup represented in the illustration consists of a rubber cup so formed as to be readily adaptable. It is provided with a vulcanite collar, into the exterior extremity of which the rectum pipe of any syringe may be inserted. The inner extremity of this tube is provided with a conical nozzle, on to which a vaginal tube may be fitted. At the bottom of the cup an opening is constructed, with a pipe sufficiently long to

reach into a vessel by the bedside, the object of this latter being to receive the return flow. The advantages of the instrument are twofold: first, that it is not liable to get out of order; second, it will be a boon to the patient, as it is convenient, clean, and comfortable. It may be had of Messrs. Maw, Son, and Thompson, who have given every care to its construction.

Arundel-square, N. C. C. RICHARDS, M.D.

Analytical Records.

DIABETIC BREAD AND BISCUITS MADE FROM THE SOYA BEAN.

(G. VAN ABBOTT AND SON, 6, DUKE-STREET MANSIONS, GROSVENOR-SQUARE, W.)

THE use of "soya" bread has recently been advocated for diabetics by no less eminent an authority than Dujardin-Beaumetz. Lucerf, according to Professor Yeo, was one of the first to call attention to the value of the meal of *Soja hispida* in dietetics. It has a leguminous fruit like the haricot, and is a native of China and Japan, but is now cultivated in Austria. The Chinese extract from soya a fatty substance which they use as milk, and even make cheese with it. The meal is very rich in nitrogenous substance, more so than animal flesh, and the amount of

starchy and saccharine substance is very small. Our examination of the bread before us confirms this. We find it to contain as much as 25·02 per cent. nitrogenous matter, and as little as 2·72 per cent. starch, and 4 per cent. of mineral matter. In texture it is just like ordinary wholemeal bread, and it possesses quite an agreeable taste. Messrs. Abbott have evidently made a very valuable addition to their list of foods which are intended for the use of the diabetic. The biscuits are not less satisfactory.

BONTHA, A STIMULATING AERATED BEVERAGE.
(MAY-DAVIS AND CO., ESHER-STREET, WESTMINSTER.)

Bontha is a distinctly novel departure in the way of non-alcoholic drinks, inasmuch as it contains the stimulating and refreshing principle of tea. We succeeded in obtaining from one bottle just the amount of theine contained in a teaspoonful of tea of first-rate quality—that is to say, nearly two grains. It contains no tannin, but a judicious proportion of certain fruit and aromatic essences, which render it agreeable and fragrant to the palate.

LE DANSK, A SUBSTITUTE FOR GENUINE BUTTER.
(AUG. PELLERIN, 53, RUE VIVIENNE, PARIS.)

Le Dansk may prove a useful substitute for genuine butter, both as regards taste and appearance. It is, in fact, a margarine of pure and excellent quality. Analysis gives the following results—12·47 per cent. water, 85·41 per cent. fat, 1·59 curd, and ·53 ash. Chemists, for the purpose of discrimination, depend upon the fact that margarine, whilst containing approximately the same amount of fat as butter, yields when saponified 95 per cent. of insoluble fatty acid, against 86 per cent. similarly yielded by most genuine butters.

WHEAT-MEAL BREAD WITH EXTRACT OF MALT.
(HUGH FAIRLIE, NEWTON STEWART.)

A well-prepared whole-meal loaf has been submitted to us. Analysis shows it to be more than ordinarily rich in dextrin. It is characterised by a sweetish though agreeable flavour of malt, the presence of which, no doubt, adds to its nutritious and digestive qualities. The idea, so far as we know, is new, and the preparation is certainly of interest.

BOVININE, A RAW FOOD EXTRACT.
(J. P. BUSH MANUFACTURING CO., U.S.A.; DEPOT FOR GREAT BRITAIN, 32, SNOWHILL, E.C.)

A very concentrated form of beef is to be found in bovinine, and one prepared on sound scientific principles. It is extremely rich in albumen, which, calculating on the nitrogen, we found to amount to as much as 16·96 per cent.; whilst the total organic matter is 17·77 per cent. The presence of the albumen in the uncoagulated condition (yet susceptible to coagulation) we verified by the fact of the extract submitted to us becoming semi-solid when heated. The mineral matter, 1·43 per cent., consists chiefly of iron and phosphoric acid. Bovinine must accordingly be regarded as a food of high value, serving as a valuable nutrient and, what is equally important, capable of easy assimilation. It is preserved against fermentation and change by the harmless addition of glycerine, although objection may be urged by some to the use of a small quantity of boracic acid, which we found present.

TONIC BREAD, FOR INDIGESTION, BILIOUSNESS, AND CONSTIPATION.
(THE TONIC BREAD CO., JOHN-STREET, BRISTOL.)

We have examined a sample of the Tonic Bread Co.'s bread, and we find it possesses an agreeable and palatable flavour notwithstanding the addition of six minims of cascara sagrada and three minims of euonymin to each pound loaf. It should prove a useful article of diet when used under medical advice.

ANNUAL REPORT OF THE LOCAL GOVERNMENT BOARD FOR IRELAND.

FROM the eighteenth annual report which has been lately issued, it appears that there has been a further decline in the average daily number of persons relieved in the workhouses, while there has also been a decrease in the average daily number of persons who received out-door relief. The average daily number in the workhouses was 43,536, and on out-door relief 62,286, or a total of 105,822, which was less than the average daily number relieved in and out of the workhouses in the previous year by 2587. During the year ended February 8th last, the total number of deaths in the various workhouses was 10,973, showing an increase of 236 as compared with the number for the preceding year. Of these, fever caused 372, against 388; lung disease 2019, against 1886; small-pox, 1; phthisis, 1136; brain disease, 479, and heart disease, 606. There were for the twelve months ending September 29th, 52,102 admitted into the workhouses for sickness, being a decrease of 972 as compared with the previous year; a decrease of 24,148 in the number admitted who were not sick, and of 1029 in the number suffering from fever or other contagious disease. In the various dispensary districts, the medical officers attended 405,840 new cases at the dispensaries, and 164,396 patients at their own homes, or a total of 570,236; and vaccinated 88,995 persons. The vaccination returns show a decrease of 3503 as compared with the year preceding. There was only one case of small-pox under treatment, which recovered. As regards fever, there were 4441 cases attended by dispensary medical officers, being an increase of 84, but a decrease of 1962 in the number of cases of scarlatina, the numbers being 1838 and 3800 respectively. The epidemic of influenza, which principally prevailed during the first quarter of 1890, constituted the most remarkable event connected with the public health of Ireland since the publication of the last report. In the "Annals of Ulster" is the earliest mention of the disease, it being called "slaedan," and between 1700 and 1800 thirteen epidemics of influenza visited Ireland. During the late epidemic the severe cases exceeded 16 per 1000 on the estimated population. There appears to be a consensus of opinion to the effect that the disease was of a miasmatic character, that it was air-borne, that it was preceded and accompanied by high temperature and moist atmosphere. A small number of observers considered it infectious and contagious. It manifested no preference for particular localities, and its incidence and progress were apparently uninfluenced by geological formations or geographical features. It does not appear to have followed the usual channels of communication; its spread was not influenced by valley lines, by river courses, by high or low levels, by undrained or marshy grounds, by drained lands or uplands, or by the contour of the different areas attacked. One observer noted the exemption from influenza of persons working in the spinning-rooms of flax-mills, where the air is moist and the temperature averages 80° F. The medical charities expenditure amounted to £157,955, under which heading is included the cost of medicines and medical appliances, salaries of medical officers and apothecaries, vaccination fees, and other expenses, showing a decrease of £1041 under that of the previous year. The Commissioners sanctioned loans, amounting to £75,746 18*s.* 8*d.*, to various towns in Ireland, principally for sewerage and water-supply, which, added to previous sums allocated, constitute a total of £1,972,226 9*s.* 11*d.* for the past fifteen years.

ANCOATS HOSPITAL, MANCHESTER.—The increasing interest shown in this institution by all classes, especially by working men in the district, is gratifying. The past year's experience of the extension (a new wing) has demonstrated that it was needed. In each of the departments—in- and out-patients, home, and accidents—there has been an increase. Endowments for several named beds have been received. The number of beds occupied during the year was twenty-five more than in 1888, and two wards in addition, to contain thirty beds, are still available, which the committee will utilise as soon as the necessary funds are forthcoming.

THE LANCET.

LONDON: SATURDAY, AUGUST 16, 1890.

IT is quite evident from a number of letters and questions which have recently been addressed to us that a good deal of misunderstanding has arisen in connexion with the medical administration of the Infectious Disease (Notification) Act, 1889, and we cannot but think that the fault has mainly arisen from the fact that medical officers of health have in a number of instances allowed their zeal to outrun their discretion. In other cases, again, it would seem that some of these officers have acquired an impression that some new function has been imposed upon them by that Act, and they proceed to perform it in a way which has given umbrage to many. With a view of clearing up these misunderstandings, we propose generally to review the powers conferred by that Act in their connexion with other general statutes and Orders in so far as infectious diseases are concerned, and to indicate what are the relations which should exist between medical officers of health and the medical profession as a body, in view of the adoption by sanitary authorities of the system of compulsory notification.

In the first place, we would observe that the Infectious Disease (Notification) Act confers one power only—namely, that of enabling sanitary authorities to acquire prompt information, through their medical officer of health, as to the existence of certain specified infectious diseases in their districts. No other change whatever has been made, either under statute or under any Order of the Local Government Board, as to the duties or functions of medical officers of health. These duties and functions remain precisely what they were, and if this fact had been remembered the occasions that gave rise to some of the letters which we have received need never have occurred. Indeed, we learn that as the result of inquiry, the Central Authority have explained to certain health officers that, whilst no new duty has been imposed upon them, the only change effected has been to multiply their sources of information.

This being the case, we have only to recall the duties which have been imposed upon medical officers of health in relation to infectious diseases under the Orders of the Local Government Board, which were framed in March, 1880, and to see how these bear upon the increased information which such officers receive in districts where compulsory notification is in operation. Apart from certain general instructions, such as "he shall be prepared to advise the sanitary authority on all matters affecting the health of the district," the main instruction which bears on this point is as follows: "On receiving information of the outbreak of any contagious, infectious, or epidemic disease of a dangerous character within the district, he shall visit the spot without delay and inquire into the causes and circumstances of such outbreak, and in case he is not satisfied that all due precautions are being taken, he shall advise the persons competent to act as to the measures which may appear to him to be required to prevent the extension of the disease, and, so far as he may be lawfully authorised, assist in the execution of the same." From this it will appear that under certain circumstances the medical officer of health must pay certain visits, but their character remains the same as formerly. They are to be paid on an occurrence of a "dangerous character," and they are consequently to be paid "without delay"; two descriptive terms that ought of themselves to have largely explained what was intended. And yet we are asked by health officers whether they must visit "every case" of infectious disease. Our answer is that their duty in this matter remains precisely what it was in March, 1880, and that this Order, which requires both a visit and also an immediate report to the Local Government Board when an outbreak of a "dangerous" character takes place, is addressed to a class of officials who are expected themselves to take the responsibility of deciding, on the basis of local circumstances better known to them than to anyone else, what does constitute an outbreak of a dangerous character in their district. Thus, they may know on the one hand, that a single case of a given disease coming to their knowledge is likely, under the circumstances surrounding it, to result in extension, and is therefore a dangerous occurrence; whereas, on the other hand, half a dozen cases of the same disease scattered about the district may need no further intervention than a postcard to a school-master and to a trained inspector of nuisances as to action, the principles of which have been often explained to them under similar circumstances. In short, an intelligent interpretation of the instruction is expected of every officer, and having regard to the class of officials in question anything more precise or definite would only have hampered intelligent action.

Perhaps the greatest difficulty that has arisen under the Notification Act has been the assumption by a few medical officers of health of the right to visit and see the actual patients to whom the notification has related; and on the strength of such a visit some have gone so far as to express to their sanitary authorities a doubt as to the correctness of the diagnosis. As to this, we would, in the first place, point out that a medical officer of health has no right whatever, in virtue of his office, to visit and examine the sick without the permission of the patients or of those responsible for their care. And, further, any medical officer of health who follows such a course, except it be in concert with the medical practitioner in attendance, commits a distinct breach of medical etiquette and of ordinary courtesy. There may be occasions when an examination of the patient is of real importance in dealing with the cause and prevention of disease; but in such cases the principles which relate to consultations should always be borne in mind, and it should be remembered that the ordinary duty of a medical officer of health has no concern with the sick person, his instruction being to visit the *spot* and to inquire into the "causes and circumstances" of the sickness, the diagnosis of which rests with the attending medical practitioner. Any departure from this rule tends to alienate the general body of medical men from the health official, and in this way it serves largely to defeat the object which the latter professes to have in view—namely, the promotion of the public health. And

so well is this appreciated by most officers of health that we know of instances in which, even when doubting a diagnosis, they have preferred to act, by way of disinfection and otherwise, on the assumption that the diagnosis was a correct one, rather than appear to claim a knowledge superior to that of their *confrères*.

Unfortunately, we have received information to the effect that some medical officers of health have gone so far as to throw doubt on a diagnosis of infectious disease in the presence of a sanitary authority, whose proceedings have been made public, and this without any communication with the medical attendant on the sick. Such a course can only be described as an unwarrantable breach of etiquette. There may be instances in which, in the interests of the public health, a medical officer of health may find it his duty to disagree with the diagnosis given in a notification. A difference of view, for example, as to whether an outbreak is due to typhoid or to typhus may involve important considerations as regards the measures of prevention to be adopted. But, whenever such a divergence of view occurs, every effort should be made to settle it privately, and, if need be, with the aid of a consultant. And if, in the end, the medical officer of health is compelled to advise his authority in a sense contrary to the diagnosis submitted to him, he should always do it in the manner least likely to give offence.

In short, further difficulties are not likely to arise under the Infectious Disease (Notification) Act, 1889, if medical officers of health will bear in mind that no new function or power has been conferred upon them since the passing of that Act, and if the principles embodied in the ordinary rules which govern the relations of medical practitioners with each other are mutually applied to the relations between medical officers of health and the medical attendants on those whose diseases have to be notified.

READERS of THE LANCET will not require to be told that the fate which awaited the unfortunate man KEMMLER—recently executed by electricity at Auburn Gaol, in the United States—has turned out to be one of the maddest, one of the saddest, histories that has ever been posted up in the historical minutes of a century now nine-tenths towards its close. People everywhere wonder that such details could have occurred. There is really no cause for the least wonder. What occurred is precisely what has been predicted by those who understood the subject, and what was more than once predicted in these columns in the comments we felt it our duty to make in stating the dangers and the difficulties that were in view should the experiment be tried. That which did occur, moreover, was worse than had been expected, and, but for the coolness, the nerve, the courage, and the ready assistance of the miserable victim, would have been something much worse still, perchance the death or injury of one or more of the other actors in the miserable tragedy. We leave it to other and less exclusive representatives of the press to dilate on the terrible suffering endured by KEMMLER during the months that have passed between his condemnation and his death. KEMMLER has for once disproved the famous saying "Cowards die many times before their deaths; the valiant never taste of death but once;" for he has virtually tasted death many times, and yet not proved coward. He has become, in point of fact, in the eyes of many, a kind of martyr to that experimental pseudo-science which stops at nothing so long as it can create an effect which strikes upon the ear or the eye of the vulgar world. From the first, in this case, expectation had no reasonable objects, and to that extent it has succeeded to perfection. It was not necessary to prove that electricity could kill, for one of the earliest electrical experimentalists accidentally proved the fact in his own person. BENJAMIN FRANKLIN explained it, even to the manner of doing it, *secundum artem*; in this country experiments on lower animals have been made and published on the subject; and lately many accidents in the management of electric wires have demonstrated on the human subject that death from electric shock was too possible an event. A capital trial on man, therefore, was not wanted. Neither was it necessary on any account to substitute the present and long-practised method of public execution. The mode by hanging, rough as it may be, is just rough enough, and no more, to produce the sense of fear that may be deterrent; while the method by the guillotine, which can be carried out unfailingly in two seconds, is certainly rapid enough to vie, even with electricity at its best. Suppose the experiment had demonstrated to everyone, without demur, that death was producible without a trace of pain, in what sense would that have differed from lethal death, if it were advisable to kill pleasantly, and what effect would it have had except to teach the murderously inclined that if they murdered, and their crime were found out, their worst fate would be to die a death which thousands of persons aweary of the world would like to die? The whole conception of the experiment was an unwholesome error, in the carrying out of which practical error succeeded conceptional. Some of the reports say the voltage was too irregular and too low, because the currents had been tampered with. If that were true, the offence was criminal; but, in strict matter of fact, the method was bad whether the voltage was wrong or right. If the blood had been made the conductor through the arms, or if mucous membrane had been made the conductor, the death would have been rapid enough. But the operators in this case, raising themselves to the height of demi-gods, tried their mimic lightning without knowing how to use it, and, using it with all the clumsiness of mortal inability, burned the skull, burned a portion of skin on the back four inches in diameter, and exploded the blood in the venous sinuses of the brain. In other words, they illustrated the effect of fervent heat, and no doubt they were fortunate enough to render the man senseless at the first blow, just as they would have done if they had struck him hard and simultaneously on the head and the small of the back with red-hot hammers; but they found no mark of electrical current in or through the viscera of the body; and altogether they furnished, even to experimental science, as poor a record as was ever offered. On the question of insensibility, we are thankful at being able to give assurance that KEMMLER was rendered dead to the world by the first blow. He was killed by con-

cussion of the brain and explosion within the closed cavity of the skull, so that he fell by "stroke" or "apoplexy," as men fall in the apoplectic seizure and in sunstroke. This means a painless death at any rate, and, in regard to suffering, it is not barbarous as some have suggested; yet in the act it is morally as barbarous as a kick on the head or the crash of a living human skull under a Nasmyth's hammer, and in this lies all its inhumanity. Let us hope it will be the last craze for a new form of death that will signalise this generation; and, above all, let us fervently hope that it will be the first and last time in which the noble profession of medicine will come into competition in deed of death with "Jack Ketch" and "Monsieur de Paris."

THAT the race of red men in North America is rapidly dying out, and that the policy of the Federal Government, in assigning to them reservations of territory for their exclusive use, has been powerless to arrest this decay, are facts familiar to all. We are, perhaps, too much inclined to regard this decadence as a mysterious and inexplicable blight—as due, not to normal causes, but to the mere contact of an inferior with a superior race. This sentimental view involves at least two obvious errors: first, the assumption that all coloured races tend to die out before the advance of the victorious white man; and, secondly, that the causes of the decay of the red man are inexplicable, whereas they are only too obvious. As regards the former point, it must be remembered that some coloured races—the negro, for example, and the Malay—hold their own when brought into contact with the whites. The negroes in North America have increased more rapidly in numbers during the present century than their white neighbours, and the certainty that this superior fecundity of the negro will continue constitutes one of the gravest problems that confront American statesmen. The Malay and the Chinaman, not to mention other examples, are quite capable, if allowed fair play, of prospering and multiplying amidst a white population. Hence, the doctrine, so often assumed as self-evident, that the coloured races die out as it were by a natural law when brought into contact with the whites is entirely fallacious. This doctrine has probably obtained currency owing to the fact that in certain familiar cases it seems to find an obvious illustration. The last native has disappeared from the island of Tasmania. The native Australian is to-day but rarely seen in Victoria, South Australia, or New South Wales, and is becoming rarer even in Queensland and Western Australia. The Maori of New Zealand and the Sandwich Islander are both going steadily to the wall before the Anglo-Saxon. These instances, which are sufficiently impressive, strike the imagination, and readily create the idea that the coloured man has no chance in the struggle for existence with the white. We have seen, however, that there are several notable exceptions to this apparent law, and we are therefore driven to seek elsewhere than in a fallacious generalisation for an explanation of the decadence of the Red Indian of America.

The explanation is evidently to be sought in the changed habits and mode of life which contact with civilisation has involved to the red man. In former days he lived an out-of-door life, he was constantly on horseback, he pursued the customs of a nomad, he dressed in skins, and lived chiefly on flesh meat. Now he lives for the most part in close cabins, he dresses in shoddy blankets and calico, and he drinks tea, coffee, and rum. Hence he falls a ready victim to scrofula and phthisis. How far the loss of the free nomad life and of the wild joy of battle may have still further depressed the mental condition of the Red Indian may be a question. He comes of a race for whom war has been for generations the only honourable employment, and he seems unable to reconcile himself to a life of toil and industry.

The moral of these facts for us is not that we should all turn nomads in order to avoid phthisis and scrofula, but that civilisation is a more or less unnatural process to which a wild race cannot be suddenly subjected without great peril, and that even for long-civilised peoples the civilising influences have certain dangers which are closely associated with unhealthy dwellings and unwholesome food. The great law of adaptation to our environment, obedience to which is the necessary condition of survival, finds in these matters one of its most striking illustrations. If the red men had been a numerous and powerful people, and if the civilising process could have been very gradually applied, it is more than probable that in the course of a score or two of generations some degree of adaptability to new conditions might have been developed. But the Indians were comparatively few in number, wholly without association or union, and they were suddenly exposed to the tremendous impact of a high civilisation. Hence they have melted away like snow in spring time. The negro has been saved from a similar fate by his extraordinary natural fecundity, his ready adaptability to a settled mode of life, and his capacity for labour.

Of the special causes that have wrought havoc among the red men, the most potent have been phthisis, scrofula, syphilis, and drink. To determine the relative influence of these destructive forces would be difficult, inasmuch as in some cases one and in other cases another has probably been the most active. That a change from an active out-of-door life to an in-door life of confinement and inactivity is a most fertile source of phthisis is a fact of which it would be impossible to overrate the importance. This fact is further emphasised by the law that phthisis increases in virulence in direct proportion to the density of the population, and especially to the proportion of the population engaged in occupations involving prolonged confinement in vitiated air. It is further illustrated by the fact that all successful forms of the climatic treatment of phthisis have this feature in common—viz., that they give the invalid the opportunity of breathing pure air.

The red man seems to have a peculiar proclivity to the evil influences of alcohol. When the opportunity presents itself, he gives way, almost without exception, to wild excess, and suffers a terrible penalty. The same tragic tale is just now being repeated amidst some of the African tribes, to whom the introduction of rum seems likely to render null all the blessings of civilisation. How far tea and coffee injuriously affect uncivilised races, to whom their use

has been previously unknown, is a point of great interest upon which we have little evidence. It would be a great fallacy to argue that, because certain evil results attend the use of tea, coffee, or alcohol among savage nations unaccustomed to their use, the same results must accrue to civilised peoples. It is obvious that custom and adaptability count for so much that such a crude generalisation is inexcusable.

IF urgent and even impassioned advocacy can avail, the votaries of the "MATTEI System" are not unlikely to make proselytes. Wonderful cures by its "electro-homœopathic" pharmacopœia are instanced by the dozen, and we are asked to believe that in all of these cases there has been a clear diagnosis of disease, and an equally clear selection of the remedy indicated. But somehow or other, when we press for more definite information, it is never forthcoming, and we are left to conclude that the patient, guided by his own sensations, has been so fortunate as to select from the MATTEI drug-store the remedy exactly suited to his case, with, of course, the most satisfactory results. Another suspicious trait of the MATTEI propaganda is that we never hear of the failures of the system, and that if a conspicuous instance of non-success (or worse) is brought under the notice of its apologist, it never can be shown how the malady under treatment has not responded to the medicine exhibited. As a matter of fact, on which we confidently appeal to the profession in Italy, the failures of the system have vastly outnumbered the successes—so much so, indeed, that the latter may safely be accounted for by that coincidence between natural recovery and the immediately antecedent taking of medicine which has been cited in support of every system of the kind which the history of the healing art records. *Post hoc ergo propter hoc* is the most venerable of all fallacies, and still survives, particularly in the domain of "popular medicine," after wounds that should have been mortal. An able and accomplished lady has recently contributed to a lay contemporary a description of the cures wrought by the "electro-homœopathic" remedies, and lays particular stress on the efficacy of these in the last winter's epidemic of influenza. Now, if one thing is better ascertained than another with regard to that mysterious visitation it is this, that sufferers from it often recovered quite sudddenly after a few hours' experience of its symptoms, and that in the matter of treatment a medicine partaking, however remotely, of the nature of a nervine tonic was more likely to be successful than any other agent in the Pharmacopœia. The disease on its first appearance struck a distinctly neurotic note, and, similarly with other neuralgias, it came and went unaccountably, returning after it had seemingly been overcome by treatment and holding permanently aloof after disappearing without remedial intervention of any kind. The occasional success of the "MATTEI system" in this disease, therefore, seems too open to obvious objection to warrant its being cited in that system's support. Again, will it be maintained that a *bonâ-fide* case of malignant tumour has ever yet been found to yield to MATTEI'S treatment, though for such growths that treatment has been vaunted as well-nigh infallible? As for the mysterious "simples" collected by the author of the system "in the woods and on the mountain slopes of the Apennines," Italian phamacologists maintain, and, we can readily believe, with justice, that every one of them has long been familiar to the profession, and that if they have not in every case been noticed in the "Pharmacopœia Italiana," it is only because their virtues are represented in greater efficacy by other herbs. The history of medicine records "system" after "system," even more plausible and more influentially supported than that connected with the name of COUNT MATTEI—systems which have lived their little day and passed irrevocably to the limbo of popular, or premature, generalisations. Not till every man and woman has, in the words of Sir JAMES COXE, been taught to be the intelligent custodian of his own health will these systems fail to find a nidus in the imagination of the multitude, or will the scientifically trained practitioner be able to count on that intelligent coöperation of his *clientèle*, against which nothing militates so effectually as the irrational belief in unauthenticated specifics and infallible systems.

IN the debate on Saturday last upon the vote in the Army Estimates for Medical Establishments, Dr. FARQUHARSON brought under notice several points connected with the medical service, which he thought called for the serious attention of the Secretary of State for War. He did not enter at length upon the grievances of the medical officers, but confined his remarks chiefly to the increased length of the tour of foreign service under the present arrangements, the reduction in the period of home service consequent upon the employment of so many retired medical officers, the importance of granting opportunities for professional study to officers returning from a lengthened period of foreign service—an advantage which, we are pleased to observe, is to be given to naval medical officers under similar circumstances,—and the necessity for giving them well-defined rank in the army, and titles which will sufficiently indicate their rank. He was followed by Mr. MACNEILL, who had not been well coached in the subject, for while he stated that in the last three campaigns "the mortality among the officers of the army was 5·4 per cent. and that of medical officers 3·1 per cent.," he omitted all reference to the more important fact that on the average of the last twenty years the annual death-rate of medical officers was 14·63, while that of officers of the line was only 10·46 per 1000. Mr. BARTLEY, who was a member of Lord CAMPERDOWN'S Committee, took a line decidedly opposed to the claims of the army medical officers. "It seemed to him to be a somewhat extraordinary circumstance that men who belonged to one of the noblest and greatest professions should have a craving for titles. Surely the title of 'doctor' was of infinitely higher worth than any sham or tinselled title." And on this point we should have been disposed fully to agree with him had there not been sufficient evidence given before the committee that the want of clearly-defined rank and a distinctive title frequently told to the disadvantage of the medical officer, not so much at home as on colonial and foreign service. Another of Mr. BARTLEY'S statements somewhat surprised us. "There was a strong feeling

in the committee to promote early retirement, and it was proposed to get rid of army medical officers after five years' service by a payment of £500, and after ten years' service by a payment of £1000. He strongly objected to "such a system" as that, which was merely using the service as a training ground for young doctors." On referring to the Report we find that the committee objected to "such a system" at least as strongly as the honourable member. "Such a system," they observe, "if largely carried out would with reason be objected to by the army, as tending to place it almost permanently in the hands of medical officers of the least experience." Mr. BARTLEY concluded by stating that "as he believed many of the grievances alleged were more sentimental than real, he thought they could not do better than continue on the present lines, endeavouring to make such improvements, and to remedy such complaints, as were reasonable." He fails, however, to say by whom the reasonable character of the complaints is to be decided; we should have thought Lord CAMPERDOWN'S Committee were qualified to give an impartial opinion, and yet Mr. BARTLEY seems to consider their recommendations unreasonable! Mr. STANHOPE objected to certain of the recommendations as involving an increase of expenditure of £100,000 a year, and, if this be correct, there appears to be good reason for modifying, but not for entirely ignoring, them. But on the subject of rank and title, which involved no money question, he endeavoured to carry the House with him by the assertion that the deputation from the Colleges "wished army doctors to be called generals, colonels, majors, and captains." He raised a laugh by his description of the wishes of the deputation, but he omitted, no doubt inadvertently, to state that this was not the recommendation of Lord CAMPERDOWN'S Committee. They, after careful inquiry, realised the need of some change, and suggested the retention of the medical title with such addition as would indicate the rank of the various officers. Mr. STANHOPE then remarked that "an honourable member had said that titles were easily understood. Well, for his own part he thought the title of 'doctor' was easily understood, whereas the titles of general, colonel, major, or captain applied to a medical officer would certainly not be." But is the title of "doctor" so easily understood when brought in contact with the military authorities and with officers and soldiers? If it were, we should hardly have so many well-grounded complaints of injustice and snubbing. The existing titles of medical officers do not indicate their relative position in the army. For instance, a brigade surgeon and a surgeon-major may have each the same relative (if we dare venture to use the word) military rank, and a surgeon-major may be relatively either a major or a lieutenant-colonel. Dr. FARQUHARSON truly said, "The doctors did not want this rank for any position of social distinction or swagger. They asked for it, as he believed, owing to the actual necessities of their life and position in the service. What the doctor wanted was a title easily understood. He wanted to be called by something definite, and they thought that a distinct rank was necessary." We believe that this would be attained by the adoption of the compound titles recommended by Lord CAMPERDOWN'S Committee, and we are at a loss to understand on what grounds Mr. STANHOPE has hesitated to accept them. It is very clear that in the interests of the army generally something must be done to allay the dissatisfaction now existing in the medical service, and we trust he will take this opportunity to remove the feeling of injustice which was naturally excited by his refusal to adopt any but the most trivial of the recommendations of his own committee.

Annotations.

"Ne quid nimis."

THE METROPOLITAN HOSPITALS AND THE LORDS' COMMITTEE.

THE Committee of the House of Lords upon Metropolitan Hospitals has issued a report, the substance of which is to carry over the inquiry to the next session. At the present time public and professional interest is directed not so much upon the report as upon the evidence which the committee has collected, and it is not too much to say that the evidence, so far as it has gone, has been not merely interesting, but profoundly impressive. The inquiry so far has touched upon a large number of burning questions. The competition of the out-patient department with private practice and the pauperising influence of charitable relief extended to those who can afford to make sufficient provision for their own necessities have been forcibly insisted on. The connexion of the medical schools with the metropolitan hospitals has been exhaustively canvassed, and—what has awakened more public interest than anything else—a minute inquiry has been made into the conditions under which the nursing work of the London Hospital is carried on. The mere enumeration of these various subjects is sufficient to show that the Lords' Committee has worked hard; and it is due to its members to add that they have not only covered a large field, but have also devoted themselves with the most painstaking care to the details of their very comprehensive investigation. The Committee has assembled on twenty-three occasions, and at twenty-two of these sittings has occupied itself with taking evidence. The result, as is apparent from the published minutes, is by no means incommensurate to the labour. Not only has public interest been strongly stimulated, but a body of evidence and of opinion has been put on record which will have a permanent value. What form legislation will take, or indeed whether legislation should follow at all upon the deliberations of the Committee, is hardly yet apparent. But, be that as it may, considerable improvements in hospital management may be expected to result from the discussion which has been inaugurated in the committee room. It is one of the drawbacks of a system of sick relief founded upon charity that a certain jealousy of one another prevents the complete realisation of the full benefits of conference and comparison of notes between various institutions. It is very difficult, perhaps impossible, so to organise a number of independent bodies all engaged upon the administration of one particular form of relief as that their work shall not overlap and waste be incurred by the competition and antagonism of forces which a better distribution would bring into coöperation. The mischief of such lack of organisation has already been made apparent, and it will certainly receive abundant additional illustration before the completion of the task which the Lords' Committee has undertaken. Suffice it at the present

stage to record that a very good beginning has been made with an undertaking which may be expected to yield in its result advantages of incalculable importance both to the metropolis and other great centres of population where exist the same problems of necessity and relief as here present themselves for solution.

SANITARY ADMINISTRATION IN MANCHESTER.

The Borough Council of Manchester met on the 6th inst. to consider a special report made by their medical officer of health, Dr. Tatham, on the desirability of reform in the machinery of sanitary administration for the city. After a year's experience and anxious consideration of all the circumstances connected with and controlling the health of the city, Dr. Tatham reports that in his "judgment the organisation at present possessed by Manchester for the preservation of the people's health, for the improvement of their general sanitary condition, and for the prevention of epidemic disease, is ill-adapted for its purpose, and urgently requires amendment." It appears that hitherto the Borough Council as the sanitary authority for the city has been divided into at least seven committees, of which at any rate the health, rivers nuisance, unhealthy dwellings, and finance committees would share the heavy responsibilities of sanitary administration in its various branches. Under these circumstances it is not surprising to find that Dr. Tatham recommends some simplification of organisation "to obviate as far as possible the confusion and overlapping of function which must sometimes occur where identical or similar duties are simultaneously discharged by several committees acting independently of one another, and with different objects in view." Dr. Tatham's proposal is that all the sanitary duties shall be organised and controlled by one health committee, which naturally should act in matters of detail through its own subcommittees. It is not difficult to see that such a course would promote unity of plan and promptness of action, or to understand that a year's experience of the present system has convinced Dr. Tatham that his power for usefulness is seriously hampered by "the amount of immovable machinery" which has to be put in motion through the various committees when any sanitary action is required. It augurs well for the future of sanitary administration in Manchester that the Council unanimously agreed to the appointment of a special committee to consider the report of the medical officer of health and to report fully upon the desirability of consolidating or reconstructing the several committees now dealing with sanitary administration. A large and representative committee was at the same time appointed, consisting of the Mayor and Deputy Mayor, the chairmen of the various committees, and fourteen other members of the Council; and it was understood that the committee should meet to commence their deliberations at the earliest opportunity. The urgent importance of increasing the effectiveness of sanitary administration in Manchester is testified by facts which are beyond cavil, and to which Dr. Tatham opportunely recalls the attention of the Borough Council. He reminds them that, as is well known, the recorded death-rate of the city during the last five years has averaged very nearly 27 per 1000 of the population, which is, with only one exception, the highest death-rate among the twenty-eight large towns dealt with in the Registrar-General's returns. It is also pointed out that Liverpool, a more densely populated town, now compares favourably with Manchester, whereas ten years ago the death-rate was higher in Liverpool than in Manchester. More successful sanitary administration in Liverpool has, in the past ten years, reduced the death-rate in that city by 24 per cent., whereas the reduction in Manchester has been barely 10 per cent. If the present death-rate of Manchester could be reduced to that which now prevails in Liverpool, it would imply an annual saving of more than two thousand lives in Manchester, and bearing in mind the character of the population of the two cities, it is doubtful whether, under equal sanitary conditions, the death-rate in Manchester should not be lower than that of Liverpool. The present waste of life in Manchester, and the inevitably coincident aggregate of suffering from sickness and ill-health, supply therefore the strongest incentive for a thorough reform in the sanitary administration of the city. It may be hoped that the recent action of the Borough Council on Dr. Tatham's report is the commencement of a new era in the health of Manchester.

THE ALKALINE TREATMENT OF YELLOW FEVER.

DR. STERNBERG, who has for some time been engaged in studying yellow fever, both in America and in Cuba, though at first disposed to agree with the view held by many that active medication does more harm than good, and that expectant methods with good nursing are the best to pursue, has now come to the conclusion that large doses of bicarbonate of soda with minute ones of perchloride of mercury have a decided effect in checking the disease. The mortality of yellow fever among natives of cities where it is rife may be as low as 10 or even 7 per cent., but among unacclimatised adults it is seldom less than 20 per cent., and may be as high as 80 per cent. When Dr. Sternberg's treatment has been carried out by various observers, the mortality among whites has averaged about 7 per cent., and amongst coloured people it has been *nil*. The most remarkable series of cases is perhaps that of Dr. Cleary of Rio de Janeiro. These occurred during a peculiarly fatal epidemic; they were thirty-three in number, only one of them being fatal. Again, the official statistics of the Mercedes Hospital in Havana show that in the seven years 1882–88 the mortality from yellow fever was in no year less than 30 per cent., and in two years it reached 60 per cent., the mean mortality of the whole seven years being 43·5 per cent. A marked diminution occurred in a series of cases treated in the hospital in 1889 by Drs. de la Guardia and Martinez on Dr. Sternberg's system, only 7 dying out of 44, showing a mortality of about 16 per cent.

THE NEW MILITARY MEDICAL SCHOOL AT LYONS.

A JUNIOR school of military medicine has been established at Lyons, the objects of which are (1) to ensure a supply of military surgeons for the active army; (2) to supplement the University studies of military medical students; and (3) to furnish such students with military education up to the time of their entry into the senior military medical school of Val-de-Grâce. The selection of candidates is to be by competition, only actual medical students who have passed the first examination for the Doctor's degree being eligible. The preliminary tests consist of essays on history or philosophy, and on natural history or chemistry; also of an essay in German or English, and questions in physics and anatomy, with a *vivâ-voce* examination. The competitive examination consists of essays and a *vivâ-voce* examination in natural history and chemistry for second-year students, and in physiology and histology for third-year students. All candidates must necessarily have the degree of Bachelier ès Lettres and that of Bachelier ès Sciences, complete or modified regarding the mathematics; but those who have passed the complete B. ès Sc. will be allowed a certain extra number of marks. The new school is, of course, a boarding-house or *pension*. The students pay 1000 francs per annum for board and lodging, and nearly as much more on entrance for

outfit, which includes the most necessary books and instruments. All University fees are paid by the Ministry of War. In cases where successful candidates are in poor circumstances they may be granted scholarships which will cover or half cover, as the case may be, the payments required. They have to undertake to serve in the army for a certain number of years, and if for any reason they do not do so they must refund such payments as the Ministry of War has made on their behalf.

ACUTE YELLOW ATROPHY OF THE LIVER.

DR. ROSENHEIM reports a case of acute yellow atrophy of the liver in a child of ten in which crystals of bilirubin were found in the urinary deposit. These crystals have never, as far as Dr. Rosenheim is aware, been found before, except in the urinary tubules in icterus neonatorum. There was no albumen in the urine, only traces of propeptone and no peptone. Evidence was found of a considerable amount of degenerative change in the kidney parenchyma by the existence in the urine of granular casts. Epithelial remains and globules of fat were also found. As regards the etiology of the disease, Dr. Rosenheim is not inclined to share in the view of Klebs and Eppinger, by whom acute yellow atrophy is looked upon as an infectious disease produced by special microbes, because he was unable to detect any micro-organisms in sections of the liver, and his endeavours to obtain cultures failed. He is much more disposed to ascribe importance to the finding of masses of bacteria in the blood circulation, in consequence of which pathological changes in the liver may be set up. He is himself inclined to think that bacteria whose habitat is unknown produce some chemical body which exerts a deleterious effect on the parenchyma of the liver, and produces the characteristic morbid changes of acute yellow atrophy.

THE INFLUENCE OF DRUGS ON ABSORPTION.

THE importance of a knowledge of the process of absorption taking place in the intestine cannot be over-rated, and consequently any addition to our information on this subject is to be welcomed. The absorption of drugs by the intestine has been very little investigated, and it is on this point that Leubuscher of Jena has made some experiments. The process of absorption must no longer be considered a purely physical one, but a function of living cells, so that any causes which may injuriously affect the life of these cells will also interfere with proper absorption. The cells may be altered by influences acting directly on themselves, or through the blood current, or through means of the nervous system. With regard to direct injury of the cells, Leubuscher experimented by isolating a small coil of intestine in a living animal by means of light ligatures, and then injecting a strong solution of a mineral acid, washing this out with water and introducing a known quantity of grape sugar in solution. Compared with a normal intestine, the quantity of grape sugar absorbed was considerably lessened. In other experiments, the artery supplying the coil was tied, or the vein leaving it, producing in the one instance anæmia and in the other congestion; in both cases, but more especially in the latter, absorption was greatly interfered with. Investigations as regards the third division—namely, the effect of the nervous system—could not be fully carried out. The action of various drugs was then tried. Grape sugar and a solution of iodine in iodide of potassium were used as tests of the power of absorption, and the following drugs were selected: quinine, opium, alcohol, glycerine; also weak solutions of common salt and Carlsbad waters. Coils of intestine were exposed and isolated in two animals. In one the grape sugar or iodine solution alone was injected, and in the other the same mixed with the drug to be tested. The results were afterwards corroborated in animals in whom an artificial intestinal fistula had been secured. Quinine, opium, and morphia, even in weak solutions, interfered greatly with absorption. Morphia acted in the same manner when it was introduced into the system by means of hypodermic injections. Alcohol in weak solutions (5 to 2 per cent.) increased absorption, but in larger quantities hindered the process. Glycerine produced no decided effect, weak solutions of common salt increased, and Carlsbad water had no effect, on absorption. A few experiments were also tried by estimating the quantity of iodide of potassium passed within a certain time in the urine of patients after a dose of this drug had been administered by the mouth, the iodide being dissolved either in water, alcohol, glycerine, Carlsbad water, or milk. With alcoholic solutions the quantity was increased as compared with the watery solutions; with glycerine, this was the same as with water; Carlsbad water also increased it, but milk lessened the quantity.

THE "FARMACOPŒIA ITALIANA."

THE profession in Italy are awaiting with much interest the issue of the national pharmacopœia, the compilation of which has for some time been in the competent hands of Dr. James Moleschott, Professor of the Institutes of Medicine in the Roman University, of Professors Corradi, Cocconi-Guareschi, and Vitali, and of the eminent pharmacologists, Drs. De Cesaris and Tacconi. The work is expected to appear before the end of August, and among the more interesting of its features will be the "List of Medicinal Substances" which may freely be sold by anyone, and of those which may also be sold by a non-qualified or non-legalised pharmacist, subject, however, to "the limits of quantity, as by law established." There will also be annexed to the publication the "Tariffa dei Medicinai" (scale of the prices of medicines), which is to be fixed from year to year by the Ministry of the Interior (or the Home Office) of the Italian Kingdom.

RISKS TO HEALTH IN EAST AFRICA.

THE colonising wave setting steadily from Europe to East Africa gives peculiar interest to Dr. Kohlstock's experience of the risks to health and the chances of longevity among his compatriots in that region. As director of the sanitary arrangements at the German headquarters, he has had excellent opportunity of forming his opinions, and the sense of responsibility with which he gives them to the world is in some measure a guarantee of the care with which he has collected his facts and drawn his conclusions. The first note he strikes is one of warning. Let no one, in any stage of phthisis, even the pre-tubercular, think of settling in East Africa, if he does not want to leave his bones in its soil. At first this danger was not appreciated in the Fatherland, and the inspection of officers setting out with colonising parties was carried out in somewhat perfunctory fashion. But the climatic conditions of the region soon made their effects apparent, and nine subalterns had to be sent home—precisely those in whose families pulmonary phthisis had prevailed. For a man of thoroughly sound constitution the two diseases to be dreaded are dysentery and malaria. The former, in Dr. Kohlstock's experience, responds satisfactorily to the measures usually taken in European centres in the East—the disease among the German troops running generally as favourable a course as in French or English garrisons. The latter is dangerous only when the patient is precluded from taking rest and compelled to continue at work, as, for instance, on necessarily forced marches. Even so, but three fatal cases have as yet been recorded among the German troops in East Africa as due to

malaria. As a rule, under conditions of rest, the malaria patient soon gets well. In stubborn cases he has to be transferred to the sanatorium — the transference hitherto being effected on ship-board, in the absence of railways. Very often the change of locality, coming after the voyage, has sufficed to restore the patient's health. A liberal allowance of fresh butcher's meat has proved the most efficacious diet in malaria; indeed, the risks arising from the disease have been greatly reduced by the excellent nursing and accommodation now enjoyed by the patient. Dr. Kohlstock holds it to be a mistaken practice to completely cut off alcohol as a prophylactic against malaria; he would rather, within the limits of temperance, that the German in East Africa should live, as far as possible, as he did at home. The necessary upturning of the soil for purposes of tillage is, in such virgin territories as that of German Africa, the most prolific source of malaria, and, at that inevitable stage of colonising operations, the sanatoria must be in constant requisition, and their treatment supplemented by change of locality for the convalescent. So well, however, have these measures been understood and carried out, that Dr. Kohlstock can point to a steady diminution in the statistical returns of malaria cases, the places where the disease has been most pronounced being, naturally enough, those like Mpwapwa, where the earth exhalations from the disturbance of long inert soil have been the most extensive, while no good water-supply has been obtained by boring. Next year, however, a marked reduction of the malaria returns will, it is hoped, be effected even in that locality.

THERAPEUTICS OF THE SEA.

WE direct the attention of our readers to Mr. Doyle's paper in THE LANCET of Aug. 2nd on account of its practical character as a guide in selecting fit cases for, and keeping back others from, long sea voyages. It is all the better, in our opinion, for its candour on the subject of remedies for sea-sickness, the best of which is, perhaps, rest in the recumbent posture, with sometimes teaspoonful doses of champagne and cold arrowroot. The value of a sea voyage to convalescents from pneumonia and pleurisy and to neurotic and anæmic patients is well shown. But, as we have indicated, the chief value of the paper is in its faithful cautions against the cruel error of sending the wrong cases to sea, and its encouragement to send well-selected cases in which the disease is apyretic and inactive. Possibly a good early evening dose of quinine in some of the cases, with evening exacerbations and night sweats, might have put them into better condition for benefiting by the sea. Mr. Doyle's remarks on the advantages of a fine sailing ship over a steamer will be generally endorsed.

ILEO-COLOSTOMY AFTER RESECTION OF THE CÆCUM FOR MALIGNANT GROWTH.

THE want of success that has usually attended the operation of excision of part of the large bowel for malignant disease of its walls makes the account of two cases in which Dr. Senn resected the cæcum for cancer, and then performed ileo-colostomy, of much interest to the profession. The notes of the cases, with remarks on intestinal anastomosis in the ileo-cæcal region, were read at the forty-first annual meeting of the American Medical Association this year.[1] The first case was that of a farmer aged thirty-seven, who recovered after excision of the cæcum and eighteen inches of the ileum, with the corresponding portion of the mesentery. In the second case, that of a corpulent woman aged fifty-three, there was carcinoma of the ileo-cæcal valve with invagination, and resection of the cæcum with a portion of the colon was performed. This patient died six days after the operation from peritonitis caused by deep ulcers of the excluded portion of the colon. In both the continuity of the intestinal canal was restored by ileo-colostomy with absorbable perforated bone plates. Dr. Senn gives the following as his conclusions:—1. Resection of the cæcum for carcinoma can be done with a fair prospect of a permanent cure if the operation is performed before infiltration of the retroperitoneal and mesenteric glands has occurred. 2. Ileo-colostomy with absorbable perforated approximation plates is the best method of restoring the continuity of the intestinal canal after excision of the cæcum. 3. The best material for the plates is decalcified lime preserved in an antiseptic solution. 4. Hygroscopic and indestructible or inabsorbable material should not be used in the preparation of approximation plates or rings, as the former may cause pressure gangrene and the latter may prove a source of danger by remaining permanently as a foreign body in the organ in which it has been introduced. 5. Ileo-colostomy without resection of the cæcum is indicated in cases of intestinal obstruction from carcinoma of the cæcum beyond the reach of operation, irreducible invagination without perforation or evidences of gangrene, and in cicatricial stenosis in the ileo-cæcal region not amenable to a plastic operation. 6. Scarification of the serous surfaces interposed between the bone plates is the most reliable means of hastening the formation of adhesions and of shortening the process of definitive healing. 7. Resection of the cæcum and ileo-colostomy, with or without enterectomy, should be done through a lateral incision, extending from near the middle of Poupart's ligament to a point half way between the anterior superior spine and the umbilicus. 8. Suturing of the serous surfaces just beyond the margins of the bone plates renders material aid in maintaining apposition between the serous surfaces which it is intended to unite, and furnishes an additional safeguard against fæcal extravasation. 9. Anchoring of the approximated parts in the ileo-cæcal region with a mesenteric peritoneal suture should, in ileo-colostomy, be performed after resection of the cæcum.

[1] Journal of the American Medical Association, June 16th, 1890.

MODERN PREVALENCE OF DENTAL CARIES.

THE question so often asked dental practitioners by patients, "What is the reason of the great increase of decay of the teeth of the rising generation?" formed the text of Mr. Kirby's presidential address at the annual meeting of the British Dental Association (Eastern Counties Branch). He thought that there could be little doubt that the increase of decay which was met with was greater than the increase in the population would account for. The Registrar-General's reports suggested that some part at least of the increase in population is due to the increase in the average length of life amongst us, and this in turn to the diminution in mortality amongst infants and children of tender years. In other words, in consequence of improvements in sanitary and medical science a considerable number of infants survive the diseases and dangers of childhood who would formerly have succumbed to them. Thus we have added to the population a considerable number of persons who, if not actually weak, may be looked upon as scarcely equal, physically, to those who used under hardier circumstances to fight through the battles of childhood. And if in the next generation there be an increase in the number of children who are the offspring of such parents we may expect to find a general lowering in tone and consequent greater tendency to dental decay. He also considered that another cause which had not received the attention it deserved was the influence of climate, which may be unsuitable to a special race: for instance, the children of English parents born in India often possess fairly good teeth, whilst the

teeth of children whose parents and grandparents have resided there are usually deplorably bad. It may also be fairly said that the children of English people born at the Cape, as well as the descendants of our race in America and Australia, have inferior teeth to our own.

"THE HOUSE-SURGEON."

UNDER the above heading this month's issue of *Murray's Magazine* contains a paper on the house-surgeon, from the pen of Mr. J. H. Morgan. The author, who is entitled to write on the subject with authority, puts before his readers in a pleasant manner some of the facts about the duties, position, and responsibilities of the house-surgeon at one of our large London hospitals. He also corrects some of the notions too prevalent with the public as to the relative positions of the various members of the surgical staff of a hospital. We cannot, however, entirely agree with him as to the duties of assistant surgeon to a hospital, which is a title which might be done away with advantageously, for in some hospitals the assistant surgeon does not assist the surgeon in his operations, but takes charge of out-patients, and acts as substitute for the surgeon in his absence. He is really surgeon to out-patients. It will be well if hospital committees take a hint from that part of Mr. Morgan's paper which deals with the subject of the housing and feeding of the resident staffs. Of the condition of things when he was house-surgeon he writes, "The rooms were dirty and the feeding inadequate," and of how many may this be written at the present time? Instead of putting the house-surgeon, on whose well-being the success or failure of the hospital depends, and who daily risks his life in the performance of duties without payment, in a better position to perform these duties, and resist the attacks of disease on himself, by placing him in a well-lighted airy room, and providing good food and attention, how often is the condition such as that described above. The rooms full of dusty, worn furniture, lighted (?) by windows once clean, but not recently so; the food badly cooked and without variety, certainly not appetising; and the attendance slovenly and inadequate. We will not enter into further details; it is enough to call attention to the possible continuance of these things. Hospital committees are often to blame, but members of the staff where such conditions still exist are not undeserving of censure. It is not in our power to say how many valuable lives of house-surgeons on the altar of duty have not, in the course of years, been sacrificed by the niggardliness of those responsible for their well-being when not immediately concerned in attention to patients. The duties of the house-surgeon are exhausting, he has to work not only early and late, but often all night, and the least that should be insisted on by all is that he should be adequately lodged and fed, and not exposed to unnecessary risk through want of proper food and attention.

THE RECENT OUTBREAK OF DIPHTHERIA IN PADDINGTON.

A FORMAL report on the recent prevalence of diphtheria in Paddington was submitted to the sanitary committee of the vestry on July 30th, by Dr. Stevenson, their medical officer of health. The report shows that there has for some few years past been an increasing amount of deaths from diphtheria, not only in Paddington but also in other divisions of London, and that forty-six cases had occurred in Paddington during the second quarter of this year. With regard to causation, Dr. Stevenson divides these cases into two groups: thirty occurred in the poorer parts of the parish and sixteen in the wealthier area. As regards the former, it is stated that they had no connexion one with the other, and that they were sporadic cases arising in each house as the result of local insanitary conditions. This is a conclusion which some may hesitate at once to accept, having regard to the difficulty of eliminating the element of infection from sore-throats not identified as diphtheria, and to the facilities which children inhabiting poor districts have for contracting infection from one the other. Besides which, the discovery of local drain and other defects in the thirty-six houses does not go for much unless it could be stated that houses occupied by the same class of population in the parish, and which remained free from infection, were not similarly circumstanced. It is also somewhat striking to find that when the remaining sixteen cases, which were of comparatively recent occurrence, and which took place under circumstances somewhat tending to facilitate inquiry, were investigated, personal infection was found to have played a leading part in the diffusion of the disease. One thing, however, seems quite certain, and that is that the water at the Paddington Recreation Ground, which had been alleged to have caused the later outbreak, must be regarded as altogether exonerated from blame. The truth is that there has been a growing number of sources of diphtheria infection in Paddington, and that these have, doubtless there as elsewhere, been associated with ill-defined but communicable sore-throats, whilst discovery of the precise circumstances leading to the excess of infection which manifested itself last quarter was a task so involved that it was difficult to unravel. Some want of unanimity was manifested at the meeting with reference to certain expensive sanitary improvements, which were ordered to be carried out at the public cost on account of a recurrence of diphtheria. Whether the actual work in question ought to be effected by the public or by individual owners we do not pretend to say, but whatever uncertainty may exist as to the origin of this group of diphtheria cases, it is certain that use should be made of the occurrence of such an infectious disease to secure the immediate amendment of all unwholesome conditions found to be associated with it.

CLINICAL INSTRUCTION IN FEVERS IN GLASGOW.

WE have been favoured with a copy of the Report of Dr. Allan, Physician Superintendent of the City of Glasgow Fever Hospital (Belvidere), on the clinical work done during the past summer session. Two six weeks' courses were given, one from the beginning of May to the middle of June, the other from the middle of June to July 24th. The students, in all fifty in the first and fifty-one in the second course, had for convenience to be divided in each course into two classes. Each class met two days a week, and, in addition, some students came on Saturdays to make written reports of cases and recent pathological demonstrations. Among the students were five qualified men. The character of the work done may be indicated as follows:—1. Short descriptive lectures in the class rooms. 2. Clinical lectures and demonstrations in the hospital. 3. Examination of students on cases. 4. Written reports of cases by students. 5. Demonstrations of pathological specimens. The following diseases were demonstrated: (1) Typhus, (2) enteric fever, (3) scarlet fever, (4) measles, (5) chicken-pox, (6) whooping-cough, (7) erysipelas. The opportunities of studying typhus were only too frequent. The attendance of students was good until attendance on lectures at the schools ceased. It is very satisfactory that none of the gentlemen attending the clinique, as far as Dr. Allan knows, contracted infectious disease. Dr. Allan expresses his cordial thanks for the assistance in the work of Dr. Carslaw, senior assistant physician. He regards this kind of teaching as only beginning, and looks forward to the proposed extension and modification of the

medical curriculum to give the students more time for this very important work. He aims especially at further subdivision of classes and at engaging all the experienced members of the medical staff in clinical teaching. London teachers will be stimulated with this account of his stewardship by one so capable and devoted as Dr. Allan.

COMFORT IN RAILWAY TRAVELLING.

NOTWTHSTANDING that the facilities of railway travel are already considerable, perfection is not yet so near but that we are able to welcome further changes for the better. Within the last few years arrangements as to sleep, cleanliness, and regularity of meals, which for trains intended to cross a continent were simply indispensable, have been applied with success and acceptance, even on our own shorter lines of communication. Hitherto these advantages have been reserved for one favoured class only. Of late, however, the forethou ght of the Midland Railway Company has afforded the many who travel "third" an opportunity of sharing in the bene fits. The result of their latest experiment, which has provided lavatory accommodation for third-class compartments, will be watched with general interest. The present median position of the lavatories, though it entails the strictest sanitary precautions, is convenient for entrance from either division of the compartment. A further boon would be the formation at one or the other end of a small buffet where tea, coffee, &c., might be obtained. On long-distance trains this could hardly fail to pay. Under present conditions a central passage is needful for the enjoyment of such privileges as these. We have before pointed out the disadvantage of through draught associated with this arrangement, but the system of closely fitting doors employed in the carriages on the Midland line suggests the most obvious means by which this drawback may be prevented.

WHAT IS BEER?

STRANGE as it may appear, the law supplies at present no answer to this apparently simple question. What every ordinary person understands by beer is certainly an alcoholic beverage prepared from malt, hops, and water, and in this view he is supported by Dr. Johnson. But the use of hops in brewing is comparatively a modern innovation, and it is difficult to see how the name of beer could be denied to a liquid made by the fermentation of wort. It is true that the hop not only contributes flavour and aroma to beer, but also assists in its preservation; but, none the less, beer before the time of the Tudors contained no hop. Then, again, with regard to malt. Other grains besides barley yield during germination sugar which may be fermented, and there appears to be no inherent reason why barley should possess a monopoly in regard to brewing. But even this is not all. Sugar may be, and is, with legal permission, used as a substitute for malt; and vegetable bitters, such as quassia, can be, and are, sometimes used in place of, or rather in addition to, hops. We have tasted a liquid described as beer to which it was admitted that neither malt nor hops had contributed. It was not a pleasant beverage to our thinking; but it is impossible to assert that it was noxious, and there may be eccentric individuals who would prefer it to the ordinary produce of Burton-on-Trent. With such an ambiguity as to the very nature of the word, it is not surprising that it is at present impossible to define what constitutes an adulteration of beer. For some years past there has been a persistent agitation in favour of what is called "pure beer"—that is, beer made only from malt and hops; and it is urged by an influential section of the community that either the use of sugar, hop substitutes, and the like should be prohibited, or that the brewer who made use of them should declare the fact to his customers. Several arguments are used in support of these contentions. It is said, not unreasonably, that the employment of cheap substitutes for malt and hops is unfair to the purchaser, who thinks he is buying a more expensive article. It is further alleged, but with very insufficient proof, that ingredients other than malt and hops are injurious to health; and, finally, that the interests of British agriculture require that malt and hops, and if possible British malt and hops, only should be used in brewing. The last, the political argument, lies somewhat out of our province, and is, moreover, frequently kept in the background, but we can hardly suppose that the hop-growers and their Parliamentary supporters who have lately been stating their views before a House of Commons Committee were entirely impartial in their objections to foreign hops and hop substitutes. Whatever view we may take of the question, one practical difficulty remains for the present insuperable, as far as hops are concerned. The detection of hop substitutes is uncertain, while their estimation in the presence of genuine hop—and some hop is practically always present—is impossible. It is evident that before fresh legislation is attempted stronger evidence must be collected, and in the meantime greater powers for the suppression of adulteration will, we trust, have been gained.

TREATMENT OF TYPHOID FEVER BY COLD BATHS.

M. DEBOVE, in a paper read at the last session of the Paris Société Médicale des Hôpitaux on the treatment of typhoid fever by cold baths, declared that he had not been convinced by a recent paper of M. Merklen that this was the best treatment. His own mortality during the last six years was 11 per cent., or during the last two years 9·2 per cent. Now M. Merklen estimates the mortality from typhoid in Paris hospitals treated by cold baths as 9·92 per cent. M. Debove does not prescribe active medication, but believes in keeping up copious diuresis. To this end he supplies his typhoid patients with abundance of liquid, and if the quantity of urine passed does not appear to him sufficient, he "stimulates the zeal" of the attendants to get the patient to drink more; the total amount of fluid which should be taken daily ought, he says, to be not less than five or six quarts. M. Debove, who does not deny the good effects of baths, suggests that they are probably due to the increased quantity of urine secreted, which, as in the case where diuresis is produced by drinking, carries off the *materies morbi* from the system. According to M. Gérin-Rose, who followed M. Debove, still more successful results may be obtained by carrying out the following indications: (1) To produce intestinal antisepsis by means of naphthol and salicylate of bismuth, (2) to lower the fever by means of very large doses of quinine and warm baths (at 86° F.), and (3) to keep up the patient's strength. Of forty-three patients treated during the last eighteen months in this way only one died.

CHILD MARRIAGE IN INDIA.

NOW that most important matters relating to the internal political administration of India have been settled, questions of hardly less consequence connected with social reform are coming to the front. Among such none probably deserves to occupy a more prominent position than that which deals with the marriage law. Most of us are by this time fairly familiar with at least the more evident effects produced in Indian family life by this extraordinary arrangement. Not many of the works contrived by custom can vie with it in senseless and tyrannical cruelty. Under present conditions all the duties and cares of married woman-

hood are discharged by wedded children. Betrothal, marriage, and motherhood or widowhood (this latter a term of harsh and meaningless indignity) are, we may say, planned for accomplishment within the first thirteen years of life. Need we wonder, then, if a system so contrary to all natural requirements has not proved a success, but in many ways a mere seed of mischief fruitful in disastrous consequences. Physical perversion must follow, and it does. Of this the sterile union, the frequently fatal childbirth, and the miserably puny offspring are certain signs. Moral corruption is no less evident. Home, as we understand it, is out of the question. It cannot be denied that the cure for these evils has been diligently sought, and, what is most important, it has been searched for and suggested by many intelligent and influential members of the native population. The subject has been ventilated in this country as well as in India by Mr. Behramji Malabari, whose writings respecting it will repay the reader's attention. A few days ago at a meeting specially convened in London under the presidency of Lord Reay several resolutions were passed affirming the desirability of extending the marriageable age, of providing for consent of the bride, of the remarriage of widows, and of the abolition of the so-called suit for the restitution of conjugal rights which have no real title to recognition. These it is intended to submit to the approval of the Indian Government, which has hitherto observed an attitude of sympathetic neutrality with reference to the proposed reform of the existing statutes. After considering the question from different points of view, we have no hesitation in supporting the moderate suggestions included in the memorandum, and the more so that the opposition to be met has been shown to rest, not on a religious or economic basis, but merely on decaying and pernicious custom.

SCARLET FEVER IN THE METROPOLIS.

THE return of the Metropolitan Asylums Board for the fortnight ending August 7th shows a steady increase in the cases of scarlet fever. The number of cases notified was 650, as against 630 in the preceding two weeks, and 239 cases of diphtheria, as against 191. The admissions of fever patients into the hospitals of the Board were 359, being 35 in excess of the previous return. The number under treatment on August 7th was 1650, of which 1444 were cases of scarlet fever, 128 of diphtheria, 4 of typhus, 65 of enteric fever, and 9 of other diseases. At that date there were 499 beds in the hospitals ready for the reception of patients, and 210 in reserve, which would be made available if required. There was not a single case of small-pox in the hospitals, and only one had been notified to the managers under the Notification Act.

FALSE CERTIFICATES OF DEATH.

MR. ALFRED HOOPER, assistant to Mr. Vokes of Birmingham, has been fined £5, or in default one month's imprisonment, for giving a false certificate in reference to the death of William Thomas Porter. The certificate stated that the case had been seen by the principal on July 3rd, the day of death, whereas Mr. Vokes had not seen the patient for nine or ten days before the fatal event. Mr. Vokes had signed the certificate before leaving home on the strength of the patient having cancer of the throat, and being unable to recover. He left the case in the hands of the unqualified assistant, who gave the certificate to the friends. The prosecution was at the instance of the Registrar-General. The magistrates considered it clearly proved that a false certificate had been issued, and imposed the above fine. We are constantly warning medical men and their unqualified assistants on this subject. We have no doubt that Mr. Vokes' action was simply due to mere thoughtlessness; none the less the result might have been most grave, and the Registrar-General is to be commended for insisting on the genuineness of certificates.

ARMY MEDICAL COMMISSIONS AND THE APOTHECARIES' LICENCE.

THE Secretary for War, by an Order lately issued, has decided that candidates for commissions in the army who hold no other diploma than that of the Society of Apothecaries under the conditions of the Medical Act of 1886 shall be deemed to possess the double qualification required by the Royal Warrant on Pay. This step could scarcely fail to be taken after the Act of 1886 had provided for completing the examinations of the Society in respect of the three branches of the profession—medicine, surgery, and midwifery—and the expressed opinion of the President of the General Medical Council before Lord Camperdown's Committee on the Pay, Status, and Conditions of Service of Medical Officers of the Army and Navy.

CHOLERA INTELLIGENCE.

CHOLERA is still slowly spreading in Spain, the provinces of Valencia, Alicante, Badajoz, and Toledo being infected. It is also stated that a man who had recently arrived in Madrid died there of cholera early this week. The principal places newly attacked are Villa-Joyosa on the coast of Valencia, Llerena in the province of Badajoz, and Arges in Toledo. Up to Aug. 11th there had been in Spain 1672 attacks, of which 834 had terminated fatally. No spread is known to have taken place either into France or Portugal, although occasional rumours of cholera arise in Paris owing to deaths from cholera nostras, such as tend to occur every autumn in many large cities. Whilst on the Franco-Spanish frontier a system much resembling our plan of medical inspection has sufficed—and this notwithstanding the arrival of a large number of Spanish who have fled from their own country,—a rigid detention of seven days is enforced on the Portuguese frontier. The Spanish Government have wisely come to the conclusion that land quarantine restrictions and sanitary cordons are useless, and have forbidden their imposition by the local authorities. It remains to be seen how far the prohibition will be acted on. With regard to the epidemic of cholera in Arabia, it would appear that its principal incidence is still confined to the pilgrims at Mecca and at Jeddah, where the extent of the outbreak may be judged of by the fact that in the three days August 9th to 11th 332 deaths occurred at Mecca and 281 at Jeddah. Strict quarantine regulations are being enforced at such stations as El Tor, where no adequate arrangements exist for the decent—to say nothing of the wholesome—detention of large bodies of pilgrims; and it would not be surprising to learn that the so-called preventive measures adopted there had led to extension of the epidemic. The Austrian Government, who have been especially mindful of the risk involved in the return of Bosnian pilgrims, have received a telegram from the leader of the pilgrimage at Jeddah to the effect that as yet all the Bosnians are in good health.

FOREIGN UNIVERSITY INTELLIGENCE.

Bonn.—Dr. Oscar Witzel has been raised to the rank of Extraordinary Professor.

Heidelberg.—Dr. Hermann Klaatsch has been recognised as *Privat-docent* in Anatomy.

Kharkoff.—Dr. Kulchitski has been appointed Extraordinary Professor of Histology and Embryology.

Kieff.—Dr. Lösch has been promoted to be Professor in Ordinary of Diagnosis.

Moscow.—Dr. A. N. Maklakoff has been appointed Extraordinary Professor of Ophthalmology.

Munich.—Professor Franz Friedberger of the Veterinary School has been granted the degree of Doctor of Medicine *honoris causâ*, on account of his valuable contributions to scientific veterinary medicine.

Rostock.—According to an old custom peculiar to this university, a number of professors and students of the Medical Faculty, more than a hundred in all, have just had a week's excursion into the country.

Strassburg.—Professor C. Fürstner of Heidelberg has been invited to fill Professor Jolly's chair.

Tomsk.—Dr. Salicheff, prosector in the St. Petersburg Medical Academy, has been appointed Professor of Operative Surgery, and Candidate Kuliabko, also of St. Petersburg, prosector in Physiology.

Warsaw.—Dr. Neugebaur has been appointed Extraordinary Professor of Obstetrics and Gynæcology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Oscar Bode, resident medical officer to the St. Petersburg Foundling Hospital.—Dr. Michael Zelenski of St. Petersburg, author of many papers on diphtheria and children's diseases.

MR. JOHN HENRY LOVE, M.R.C.S. (Wolverhampton), has succumbed to injuries received in the post-mortem room. On May 12th he was engaged in making a post-mortem examination in the mortuary. While removing the skull-cap he struck the chisel with the sharp end of the hammer instead of with the flat end, and it glanced off and caught his finger. He immediately sucked the wound, but afterwards suffered from the effects of it. The diseased condition extended so that the finger had to be removed. The poison still continued its work, extended up the arm, and ultimately the brain became affected, and death took place on Wednesday, the 7th inst.

THE public health legislation of Italy makes rapid progress. The Royal signature has just been appended to the decrees regulating the municipal laboratories of "Vigilanza Igienica" and of those for the analyses of "aliments and beverages." These laboratories have two sections—one "medico-micrographic," and the other chemical. Both are under the surveillance of the Home Office, which establishes the analytic methods to be employed and the *modus operandi* of the laboratories, while it also undertakes the solution of technical questions.

THE announcement in the *Mohammadan Observer* that a severe epidemic of cholera had broken out at Dharmsala is followed by the suggestive paragraph that the Cawnpore municipality has sanctioned the expenditure of fifteen lakhs of rupees for the purpose of providing an efficient sewerage scheme.

THE *Globe* announces that Dr. Robert Stevenson, an American physician, died suddenly on Sunday in Vienna, which he visited after leaving the Medical Congress at Berlin. Hæmorrhage in the brain is stated to have been the cause of death.

THE Governor of New Caledonia has just sent two naval medical officers to Fiji to study a disease which appears to have all the characters of leprosy, and which has appeared among the Canaques of New Caledonia.

DR. BENJAMIN WARD RICHARDSON, F.R.S., has been elected President of the Association of Public Sanitary Inspectors in succession to the late Sir Edwin Chadwick, K.C.B.

SURGEON T. H. PARKE is attached for duty with the 2nd Life Guards, Surgeon-Major G. F. Hume Spry having been placed upon retired pay.

SMALL-POX is reported to have broken out at Delagoa Bay. Quarantine has been imposed.

THE INTERNATIONAL MEDICAL CONGRESS IN BERLIN.

FIRST GENERAL MEETING (*continued*).

BESIDES Professor Virchow, who was elected President of the Congress, the other members of the Organisation Committee were appointed to form the Managing Committee of the Congress. Duke Karl Theodor of Bavaria (who is well known as an oculist), Paget, Grainger Stewart, Stokes (Britain), Billings (United States), Billroth (Austria), Csatáry (Hungary), Crocq (Belgium), Lange (Denmark), Bouchard (France), Rubio (Spain), Baccelli (Italy), Lavista (Mexico), Laache (Norway), Stockvis (Netherlands), Asaki (Roumania), Sklifassowski (Russia), Holmgren (Sweden), Sozin (Switzerland), Aretaeos (Greece), and Guarch (Uruguay) were elected honorary presidents.

After a pause for lunch, Sir JOSEPH LISTER ascended the platform amid loud and prolonged applause. In the beginning of his speech he alluded to the scavenger cells or phagocytes discovered by Metschnikoff, the white blood-corpuscles which envelop parasitic intruders and render them harmless. He then spoke of the antiseptic treatment of wounds, declared his preference for sublimate over other disinfectants, especially cyanide of mercury, and drew attention to the degrees of dilution of sublimate which he had found advisable. The purpose was to avoid irritating the wound surfaces as much as possible, for which reason one must use weaker solutions for the more sensitive tissues. In operations in the pleural cavity, drainage was necessary as well as the antiseptic bandage. He had given up the use of spray some years ago; it could be of value at most only for the continuous disinfection of the operator's hands. It might easily do harm, because the motion of the air produced by it might carry off germs with it and convey them to the wound, not to mention that the use of spray sometimes led to the neglect of other antiseptic precautions. He advised the leaving of complicated contusion wounds open at first.

Dr. ROBERT KOCH, the distinguished director of the Hygienic Institute in Berlin, was the next speaker, and his reception was not less enthusiastic than that of Sir Joseph Lister. He declared that he had not much that was new to tell, but he would make a preliminary communication regarding the result of important new experiments. This communication had reference to a remedy for consumption discovered by him, which, however, he would not name till his experiments were ended. The rest of his address was an admirably clear account of the progress of bacteriological research. Only fifteen years ago one regarded the micro-organisms occasionally observed in the bodies of diseased animals and persons more as curiosities than as things essentially connected with the disease. And considering the great ignorance of their nature which then prevailed, this could not but be so; there were investigators, for instance, who declared bacteria to be crystalloid bodies, not living organisms. With the perfecting of the magnifying instruments, the application of staining, the propagation of organisms on nutritive media, culminating soon in pure cultivation, a rapid change took place. It became possible to distinguish a number of quite definite sorts with certainty, and to ascertain that they were distinctly connected with the diseases in which they were found. It was further ascertained that one

sort of bacteria was not transformed into another, and the remarks of old writers on leprosy and consumption, for instance, even justified the conclusion that, just as certain diseases, presumably caused by micro-organisms, had remained unchanged, their germs also must on the whole have retained their old qualities. Within certain limits, indeed, deviations of demeanour had been observed in some bacteria, but that was the case among the higher plants too, without the varieties ceasing to belong to the species. The main gain of this period of research was the recognition of the fact that the thing was to discover as many morphological and biological qualities of a bacterium as possible, so as to be guarded against the danger of confounding various bacteria. There was still a danger of this with certain bacteria, the typhus and diphtheria bacilli for example, whereas it had been removed in the case of the tubercle and cholera bacilli by the very exact investigations of these organisms. In their case too, however, the bacillus must never be determined by one mark alone. He had experienced this in his own case, having for some time taken the bacillus of chicken cholera—for the special study of which he had not had material,—for a variety of the bacillus of Asiatic cholera, till a new series of experiments had convinced him of his error. Whether the germ of chicken cholera would have an injurious effect on human beings was still a question, and a question that would not easily be answered, as one could not well make direct experiments on human beings, but must wait to see whether the bacillus of chicken cholera would not one day appear in a human cholera patient. As to the etiological connexion of the noxious bacteria with infectious diseases general opinion was at first against it, and strict proof was necessary. It was necessary to prove in all cases that the disease and the micro-organism always appear together, that the micro-organism in question does not appear in any other disease, and that the micro-organism, propagated outside of the body through several generations, always produces the same disease if it gets into the body again. Now that the etiological connexion had been proved in this manner in anthrax, tuberculosis, and erysipelas, and the resistance of opponents broken, one might confine oneself in further cases to the two first lines of proof. This proof had still to be given in the case of abdominal typhus, ague, leprosy, diphtheria, and Asiatic cholera, but in the case of the latter it was already generally assumed that the cholera bacillus was the cause of cholera. As subjects of investigation for the immediate future Koch designated the question whether the pathogenic bacteria live only in the body or outside of it too, and in the latter case only occasionally get into the body and cause disease; also the manner of getting into the body, and their demeanour there. The next advance in bacteriology was the discovery of the poisons excreted by the bacteria, which were now regarded as the cause of death in fatal bacterial diseases, for the opinion that the white blood-corpuscles resist the bacteria was more and more losing ground. Koch then discussed the spore-formation of some bacteria, and the influences of air, warmth, moisture, and chemicals on bacteria. Direct sunlight quickly killed bacteria, the tubercle bacillus, for instance; even daylight produces the same effect, though more slowly. Cultivations of the tubercle bacillus, propagated for from five to seven days at a window, died. Moisture was necessary for the growth of bacteria; moisture, however, on the other hand, hindered their spreading. A bacterium never rose; its transmission took place only by the flying of dust, if it remained for some time capable of life in dry air. By means of improved staining methods some knowledge of the inner structure of bacteria had recently been gained; there seemed to be an inner nucleus of plasma with flagella proceeding from it. In certain infectious diseases—measles, scarlet fever, and small-pox, for instance,—the presence of a pathogenic bacterium had not yet been proved. In hydrophobia, influenza, whooping-cough, trachoma, yellow fever, cattle plague, and pleuro-pneumonia of cattle, also, no specific bacterium had been discovered, though the infectious nature of these diseases was evident. And perhaps these diseases were caused, not by bacteria, but by organic parasites belonging to quite another group of animated beings. In the blood of malaria patients protozoa had been found, which were now suspected of causing this and other infectious diseases. Whether protozoa, the lowest representatives of the animal world, really deserved this suspicion would have to be decided by a method analogous to bacteriological pure cultivation. But now there remained the question what had been the practical utility of all these extremely laborious investigations. The investigator, indeed, ought not to inquire after the immediate practical utility of his work; in the present case, however, the question was not entirely devoid of justification. Nor was it quite impossible to give it a satisfactory answer. Had not bacteriological investigation alone led to effective methods of disinfection? The value of water filtration, the question of the filtering qualities of the soil, of the fitness of surface water for use as drinking water, of the best method of constructing wells, the sterilisation of milk—so important especially for the nutrition of infants,—the investigation of the air in school rooms and in sewers, the proof of the presence of pathogenic bacteria in the soil and in the air, were all bacteriological questions or conquests. The diagnosis of isolated cases of Asiatic cholera rendered timely preventive measures, the discovery of tubercle bacilli rendered timely therapeutic measures, possible. Besides these, indeed, only Pasteur's inoculations against hydrophobia, anthrax, symptomatic anthrax, and swine erysipelas remained to be mentioned, and the first of these probably did not belong to bacteriology at all, though they had grown on its soil. "But," concluded the Professor, "it will not always remain so. Therapeutics proper will also derive benefit from bacteriology, hardly, indeed, for diseases of rapid course, in which prevention will remain the main thing, but certainly for slow diseases such as tuberculosis. Others also, like Billroth, maintain this hope; but the mistake has frequently been committed of beginning the experiment on human subjects. I regard this as wrong, and look upon the alleged successes of various remedies, from benzoate of soda to hot air, as illusory. For years past I have been seeking means for the therapeutic treatment of consumption, but I began with the pure cultivation of the bacillus. I found a number of substances—ethereal oils, tar-pigments, mercurial vapour, salts of gold and silver, especially cyanide of gold, for instance; some of which, like the last, even when very strongly diluted, prevent the growth of the bacillus, which, of course, suffices to bring the disease to a standstill. All these substances, however, have proved ineffectual when used against the bacillus in the bodies of animals. I continued my search, however, and found what I sought. Susceptible as the guinea-pig is to the tubercle bacillus, it proved non-inoculable when treated with the substances in question, and even when its disease was far advanced it could be brought to a standstill by this means. This fact may give occasion to search for similar effective remedies in other infectious diseases also, and here lies the field for an international contest of the highest and noblest kind."

After enthusiastic applause the meeting was closed.

MEDICINE AND THERAPEUTICS.

On Chloroform Narcosis.[1]—T. LAUDER BRUNTON, M.D., Sc.D., F.R.S., in introducing this subject discussed the question, Does danger to life during chloroform narcosis arise from failure of the heart or failure of the respiration, and how is such a danger to be averted? After tracing the nature of the early investigations for the discovery of the toxic effects of chloroform, he said: "Other experiments have shown that chloroform is undoubtedly a protoplasmic poison of very considerable power; it will destroy microbes and prevent putrefaction, when mixed with blood it will destroy the corpuscles, and when injected into the artery of a limb it will produce rigor mortis in the muscles to which it is distributed and render the limb as stiff as a piece of board. The results of these experiments have been used to explain the sudden deaths occurring during chloroform narcotisation, and it appears to me that this has been done without sufficient regard to the conditions under which the chloroform has been applied in the laboratory in the experiments to which I have referred and those under which it is employed in surgical, medical, and obstetrical practice as an anæsthetic, for the conditions under which a drug is applied may so completely alter its action that a dangerous poison may be, when applied in a certain way, perfectly harmless." He illustrated this by referring to the well-known arrow poison, curara. "The

[1] This paper is abridged from the original MS., but was delivered in German by the author at the Congress.

effect of curara in paralysing motor nerves when it reaches them in sufficient quantity is so thoroughly demonstrated that no physiologist would dream of doubting the fact. But one can readily conceive that a student who had seen the marked paralysing action of curara might be inclined to doubt the statement that it was innocuous when given by the mouth, and in like manner anyone who has seen the extraordinary effect of chloroform injected into the arteries in producing rigor mortis of the muscles might be inclined to say this drug must needs be dangerous, and if he had found—as find he certainly would—that it lowered the blood-pressure, and stopped the heart when the vapour was blown directly into the lungs, he would be very likely to think that it could not be innocuous when simply inhaled. But this is the very question which is of vital importance for us. I grant at once that chloroform is a protoplasmic poison. I have rendered the muscles of an animal as stiff as a piece of wood by injecting it into the artery of a limb; I have stopped the pulsations of an animal's heart by blowing chloroform vapour directly into the lungs. But what I wish to maintain is that notwithstanding all this, when chloroform vapour is inhaled in the usual way by inspiratory efforts of the patient himself, it does not stop the heart, but acts first upon the respiratory centre, and by stopping the breathing prevents a quantity of chloroform sufficient to stop the heart from reaching that organ." This is no new doctrine; it was held by Sir James Simpson, it was taught by the late Professor Syme and by Sir Joseph Lister,[2] and it was the respect which one of Professor Syme's pupils, Surgeon-Major Lawrie, had for his master's teaching which led to the performance of the experiments, of which he proceeded to give a short summary. In speaking of the attention necessary to be given to the respiration, Dr. Brunton said: "We may say then that the time of grace is only half a minute, and if the administrator's attention should be so distracted as to allow this half minute to elapse after the respiration has ceased the patient will probably die. It is evident then that constant attention to the respiration is required, and indeed this was the great lesson taught us by our experiments. When chloroform was inhaled with free admixture of air it usually produced a fall of blood-pressure to some extent, but the administration of chloroform may be continued for a long time without much further fall, provided always that plenty of air be given along with it. But if chloroform vapour be given with a deficient quantity of air the fall of blood-pressure is very rapid, the cardiac pulsations become slow and irregular, and shortly cease altogether. This irregularity is well shown in the tracing of the Glasgow Committee, from which they drew their conclusion that chloroform depresses the heart, and does so irregularly and in an unforeseen manner. The tracing is evidently one of slow pulse due to irritation of the vagus. We made many attempts to imitate it. We were able to do it to some extent by direct irritation of the vagus by electricity, but as no direct irritation of the vagus had been applied by the Glasgow Committee we tried all the things that seemed to us likely to produce accidental vagus irritation. We applied to the trunk of the nerve strong solutions of bicarbonate and carbonate of soda, thinking that possibly some of the solution used to prevent coagulation might have come upon a nerve. We ligatured it along with the artery and also by itself, but did not succeed in reproducing the tracing. We tried to irritate the nerve reflexly by stimulation applied to the sciatic nerve, to the ulnar nerve, and to the central end of the vagus. These attempts were also unsuccessful, but on simply closing the animal's mouth and nostrils, or closing the opening of the tracheal cannula when one had been introduced, we were able at once to reproduce the tracing with certainty. It will be noticed that respiratory movements not only exist, but are exaggerated in the Glasgow tracing; but it is quite clear, from their very exaggeration, that air was not entering the animal's thorax at all, or if so it must have been a small quantity. The respiratory passages were evidently blocked in some way, otherwise such respiratory curves would not have been evident in a blood-pressure tracing. We were able to produce such curves both when the animal was thoroughly under chloroform and when it was completely out of chloroform. In order to ascertain the effect of shock in depressing the circulation we made a number of experiments, repeating upon the animals those operations which had been peculiarly fatal to life during chloroform narcosis. It is remarkable that the largest proportion of deaths during chloroform have occurred not in serious operations, but in trivial ones, such as extraction of teeth, slight operations upon the anus, evulsion of toe-nails, and such like. We were a good deal astonished to find that these experiments in animals produced hardly any effect upon the circulation. Put shortly, the effect of shock, such as we observed it, was very slight. Just before the Commission was appointed an unfortunate case of death from nitrous oxide occurred in Edinburgh. A lady while inhaling the gas in order to have a tooth extracted suddenly fainted and died. In trying to restore her it was found that her stays were very tightly laced, and they had to be cut open to allow artificial respiration to be fairly tried. We therefore thought it advisable to test the effects of pressure upon the chest, and, as there is a difference in the mode of respiration between man and woman, we selected female monkeys, and applied round the chest a bandage of some plaster of Paris so as to imitate stays, while a narrow band was tied round the abdomen in order to imitate the band of petticoats. Under such circumstances we found that death occurred very rapidly from the administration of chloroform. Curiously enough, a number of lay journals drew attention to these experiments, and denounced them as horrid cruelty, totally forgetting that not the least pain was inflicted, as the animal was under chloroform from beginning to end, and, moreover, the object of these experiments was, like those of the whole Commission, in the words of his Highness the Nyzam himself, 'to save people's lives.'" At the conclusion of his paper the author said: "Our experiments have led us to believe that the doctrine taught by Simpsom and by Syme is the correct one—namely, that in chloroform narcosis by inhalation the respiration fails before the heart, and that close attention to the respiration is the true way of avoiding danger. In regard to ether and chloroform, our experiments led us to agree entirely with Claude Bernard. He says: 'As to ether and chloroform, their action is almost the same from a physiological point of view, excepting that there is a difference of intensity in favour of chloroform, which will lead us generally to employ this latter substance in preference to ether.' Our experiments, numerous as they were, are quite insignificant in comparison with the enormous number of times that chloroform has been tested upon human beings, but they are much more numerous than any series hitherto made upon animals, and they have a special value from the fact that the whole results of the blood-pressure experiments have been recorded automatically and the tracings photographed. By the great generosity of his Highness the Nyzam a copy of the photographs will be sent to the most important medical libraries in various parts of the world, and the results of the experiments will consequently be as readily available for those who simply consult the photographs as they were for us who actually did the experiments. We believe that the fear of chloroform as an anæsthetic has arisen not from clinical observation, but from the results of experiments upon animals having been wrongly interpreted, and the erroneous interpretation applied to explain the cause of death during the administration of chloroform in man. The question cannot be finally settled either from the purely clinical or the purely experimental side; both must be worked up together, and to this end THE LANCET has sent out a circular asking for information regarding all cases of death from chloroform. When all the deaths from chloroform have been completely tabulated their causes may be interpreted by the light of our experiments, and we believe that the result will be to show that they have been due to failure of the respiration, and not to the direct action of chloroform upon the heart. Failure of the respiration may have occurred from the effect of chloroform, and have been unnoticed either from the attention of the admistrator being distracted or while changing the position of the patient, so that the respiration could not be easily noticed; or, while respiratory movements have continued, asphyxia may have actually occurred from stoppage of the air passages, from the tongue falling back, or from the actual entrance of foreign bodies into the air tubes. Pressure upon the chest or abdomen by the arms of the operator or of his assistants is another cause of imperfect respiration not to be neglected, and a most important one is that of tight clothing. If the administrator is unable to feel the pulse without diverting his attention from the respiration, he had better

[2] Holmes' System of Surgery.

leave it alone. Hitherto, it has been the practice to examine the heart before administering chloroform, but it is possible that a safer guide might be found in the condition of the urine. At present, however, we do not know precisely in what direction to look for indications of danger in the urine; though if it contain an abnormal quantity of alkaloidal substances, it is possible that risk may ensue. The whole subject of danger arising from poisons formed in the body has received a new impetus from the researches of Brieger, and it is to the application of his methods that we must look for aid in solving the question I have just raised. But whatever sources of danger hitherto unlooked for may possibly tend to produce death during chloroform narcosis, and whatever opinions may be held in regard to the comparative merits of the different anæsthetics, there can, I think, be but one opinion regarding the action of the Mahomedan ruler, who has shown towards science in modern times the same liberality that Haroun al Raschid and other caliphs showed in times of old. To him and his enlightened ministers, Sir Asman Jah and Intesar Jung, not only Science but Humanity in general owes a debt of gratitude."

On the Principles of the Treatment of Diabetes Mellitus.—F. W. PAVY, M.D., LL.D., F.R.S., read a paper on this subject, in which he said the first point to be considered in discussing the treatment was the *rationale* upon which deviation from health resulting in the escape of sugar with the urine should be conducted. It is with the carbohydrate principles of food that the faulty action lies. These, instead of passing in the direction that results in their consumption and utilisation and consequent disappearance within the system, as occurs in health, do not follow such a course, but remain in the state of carbohydrate, and are eliminated as such. There is no theoretical consideration involved in stating that the carbohydrates in the system of the diabetic fail to undergo those proper chemical changes which, in health, lead to their disappearance, and that consequently, whether ingested from without or formed from the splitting up of nitrogenous matter within, they become disposed of by egress with the urine. As a result of faulty action the carbohydrate, in the form of sugar, reaches the general circulation in a manner it ought not to do, and osmosis suffices to account for the escape that takes place through the kidney. The author gave an account of a series of observations made some years ago in which he precipitated the sugar by means of lead acetate and ammonia, after previous separation of the uric acid by lead acetate alone. The compound of sugar and lead oxide was then decomposed by sulphuretted hydrogen and the sugar estimated gravimetrically by boiling with the copper test liquid, collecting the precipitated cuprous oxide, and subsequently by the aid of a galvanic current depositing the copper upon a weighed platinum cylinder. The amount found varied from 0·096 to 0·533 parts of sugar per 1000 parts of urine. From a large number of observations, he stated that the quantity of sugar in blood taken under natural conditions did not amount to more than from about 0·5 to about 0·8 per 1000. He had made analyses of the blood obtained from persons suffering from diabetes, and has a record of seven instances. "A general agreement is distinctly recognisable between the amount of sugar escaping with the urine and that found in the blood. Taking one instance where 751 grammes of sugar were eliminated with the urine in the twenty-four hours, the blood contained 5·763 per 1000; whilst in another with 27 grammes in the urine for the twenty-four hours the amount in the blood was 1·543 per 1000. Seeing that sugar is a diffusible substance, it may be looked for in the urine in proportion to its presence in the blood, and *vice versâ*. Looked at broadly, it may certainly be stated that the larger the amount of sugar eliminated with the urine the worse in every direction is the condition of the patient suffering from diabetes. We thus trace the symptomatic phenomena of the disease to the abnormal condition occasioned by the presence to an undue extent of sugar in the general circulation. In tracing the origin of this abnormality, we start with the fact that sugar is present in the blood to an extent that is unnatural. Is this due to sugar reaching the general circulation in a manner that it ought not, or is it to be regarded as natural that all the sugar eliminated in diabetes should reach the general circulation, the error consisting of its not undergoing subsequent destruction, thus leading to accumulation?" His experimental inquiries led him decidedly to affirm that the source of the sugar encountered in the blood and eliminated in diabetes ought to be attributed to its being permitted to enter the general circulation in a manner that it ought not. This view harmonises fully with the phenomena observed in diabetes. In health, he said, the opportunity was not afforded for the ingested carbohydrates to appear in the urine, because they were not permitted to pass through the liver and reach the general circulation. In diabetes, on the other hand, we know that they do reach the general circulation in the form of sugar, and from the amount of this principle to be found in the urine it can be stated that they must do so in proportion to the amount ingested. He had conducted a large number of experiments upon this point, and concluded that when the requisite precautions were observed, to obtain a representation of the natural condition of the blood of the systemic or general and of the portal circulation a large preponderance of sugar is encountered in the blood of the portal vein, if the observation be made at a period of digestion and after the ingestion of food freely containing carbohydrate matter. But it is necessary to bear in mind, if the estimation of the sugar be effected, as is the common practice, with the copper test, that a fallacy may arise from the following circumstance, unless measures are taken to guard against it. With the transformation of starch in the alimentary canal, preparatory to absorption, it is not, certainly to any noteworthy extent, carried higher than maltose, which, as is known, has a cupric oxide reducing capacity of 61, as compared with glucose at 100, and much of it is only carried into a dextrin with a lower cupric oxide reducing power still. Hence the form of carbohydrate, derived from starch, which reaches the portal system does not possess the cupric oxide reducing capacity of glucose, but something more or less considerably below it. As an actual fact, Dr. Pavy had a recorded instance in which the product contained in the portal blood after the ingestion of starchy food possessed a cupric oxide reducing power standing as low as 21, as compared with glucose at 100. In this instance, if reliance had been placed on the ordinarily conducted method of estimation, the amount of carbohydrate present would have been expressed at only about one-fifth of what it really was. With a form of carbohydrate other than glucose existing, it is necessary to bring it into glucose by boiling with dilute sulphuric acid, to permit of the true amount being determined, and this has been the plan of procedure of late years adopted in the researches he had conducted. In cases in which the discharge of sugar is susceptible of control by treatment, starting with the ingestion of carbohydrate, there follows, briefly summarised, as a consequence of the want of proper transformative or assimilative power within the system, an accumulation of sugar in the blood attended with its discharge by the urine. Accumulation of sugar in the blood leads to the production of symptoms proportionate in severity to the deviation from the natural state. The plain object is to reduce this deviation as far as is found to be possible. If the chemistry could be set right, and sugar be prevented reaching the general circulation, the disease would be removed; but it may not be possible to restore the transformative or assimilative power which has become impaired or lost, and then the only way of arriving at what is wanted is to withhold from introduction into the system the alimentary principles which, owing to failure of power to properly dispose of them, cannot be of service, and which, by leading to the passage of sugar through the system, establish an unnatural condition and thereby inflict positive harm. As long as the passage of sugar through the system is prevented no harm takes place. There is nothing, in fact, to form the source of trouble, seeing that there is not the abnormal presence of sugar in the circulation to occasion deviation from the healthy state. The contrast between the two conditions is well shown in cases where the disease has run on for some time without being recognised, and is subsequently controlled by dietetic treatment. The first consideration in the treatment is to control by dietetic measures the passage of sugar through the system. The real point, however, to be aimed at is to restore the assimilative power over the carbohydrate elements of food, and until this has been accomplished it cannot be said that a cure has been effected, but only that the disease is held in subjection and prevented, as long as the condition can be maintained, from leading on to an unfavourable issue. According to the experience of the author, opium and its derivatives codeine and morphine are the medicinal agents which, more than any others, assisted in the actual cure of the

disease. When cases occurring above the middle period of life are treated by these combined measures for some time, it is a matter of common observation that the system of the patient becomes able to tolerate a certain amount of carbohydrate food without its leading to the elimination of sugar. It was absolutely essential, in the management of a case, to possess the knowledge supplied by quantitative testing, not only for the purpose of regulating the treatment according to the progress made, but also for keeping a check upon the manner in which the directions given were being carried out. When in a case it is discovered that the assimilative power has been restored, it is permissible to consider that an actual cure has been effected; but it is always requisite to bear in mind that a weak point has existed, and that it is advisable to avoid unduly taxing a power which has previously given evidence of being at fault.

The Treatment of Syphilis of the Nervous System was the title of a paper read by Dr. JULIUS ALTHAUS. After a brief historical retrospect of the evolution of the literature of nerve-syphilis and the use of mercury, the author laid down rules for its prophylactic treatment. The group belongs to the gravest diseases with which the profession have to contend in practice, and which are almost invariably fatal when not treated. Even if judiciously treated, the disease is extremely liable to sudden and severe relapses. He recommended the excision of the primary sore wherever this was practicable, for destroying, or at least greatly attenuating, the virus in the beginning; and a mercurial treatment for about three months from the appearance of secondary symptoms. If, however, no such treatment had been followed, there is in any case the possibility, and where there exists a neurotic tendency great probability, of the nervous system eventually becoming affected. The author finds that a neurotic tendency existed in 59·9 per cent. of his cases. The nervous system of patients who have had syphilis after the mercurial course is finished should be braced up so as to enable them to resist any inroads of the disease on that system. For the curative treatment of nerve syphilis he considers the periodical and long-continued hypodermic injection of small doses of a non-irritant, insoluble preparation of mercury to be the most important remedy. He recommends what he terms the "carbolised mercurial cream," a preparation which consists of metallic mercury rubbed up with lanoline, and then mixed with a certain proportion of carbolised oil. Perfect homogeneity of the mass, great stability, painless injection, absence of swellings and abscesses, great efficiency in truly specific lesions, and absence of the risk of stomatitis and dysentery, if a certain dose is not exceeded, are among some of the advantages of the preparation. The author concluded his paper by expressing the hope that the prognosis of these affections in general will become more favourable in proportion as the principles of treatment become better understood and more energetically carried out, especially in the beginning of the malady.

American Therapeutics of Diphtheria.—Prof. A. JACOBI, M.D., in this paper traced the history of various epidemics extending from 1659, when Samuel Danforth lost "four children by bladders in the windpipe," down to the time (1868) when he furnished a list of 203 cases, by which it became known that the contagion was very active and affected every kind of wound. The present condition of the therapeutics of the disease in North America was marked by the extra attention devoted to prophylaxis both in literature and in practice. The sanitary arrangements made in New York City for combating epidemics of the disease were admirable, the cases being carefully isolated. Practitioners endeavoured to preserve the general health of their patients by the use of cold water, and the catarrh of the mucous membranes of the nose and throat were combated with salt water, boracic acid, nitrate of silver, exsection of hypertrophied tonsils, &c. Chlorate of potassium was employed to preserve intact or to restore the mucous membrane of the oral cavity, tincture of the chloride of iron for its anti fermentative and astringent effect, in frequent doses, so that a child of a year takes from three to four grammes daily, in twenty or forty doses. The local treatment of diphtheritic wounds or surfaces (circumcised prepuce, vagina) was mostly by tincture of iodine, iodoform in powder or ointments, or solutions of bichloride of mercury, 1 in 1000 or 3000. An extensive list of other drugs was given. Gargles were considered adjuvants when no violence was used in their administration, but nasal injections were gradually taking their place, seeing that they reach the most affected part of the larynx much better, and are much better tolerated. Nasal diphtheria would not get well without some warm, mild injection. Conjunctival diphtheria he treated with ice and strong solutions of boracic acid. Referring to the medical treatment of diphtheria, he was of opinion that it was impossible to give too much brandy in this disease, and stated that from 50 to 1000 grammes might be given daily with advantage. Alcohol ought to be given early, and a certain quantity in all cases, seeing that heart failure comes unexpectedly, and then stimulation is generally too late. It was therefore a good practice to give cardiac tonics in time. Strychnine was indispensable in diphtheritic paralysis. The author spoke of the effects of mercury on this disease, and then alluded to the operative treatment by intubation, which had supplanted tracheotomy because of the rapidity, bloodlessness, and equal efficiency with which it can be performed. Its results in the hands of its discoverer, O'Dwyer, were as good as those in tracheotomy. Every case was managed according to its individual indications; isolation was enforced, fluid food given, moderate stimulation resorted to, absolute rest enjoined, even the nasal injections are made in a recumbent or semi-recumbent posture, and complications watched and treated.

SURGERY.

The material submitted to this Section was perhaps on the whole more remarkable for quantity than for quality; no great or startling innovation in surgery has marked this International Congress. Without doubt the various hospitals in Berlin have undergone great and radical changes in the last ten years. Many of them were shown to the section, and in all lavish expenditure was more than apparent. The new hospital is quite unsurpassed by any yet built in its arrangement and technical fittings. It is evident that the aseptic, as opposed to antiseptic, method of operating has obtained a firm foothold in Germany. The greatest care is taken, in Prof. Bergmann's clinic, to sterilise everything that comes in contact with the wound; the instruments are all boiled for five minutes in a 1 per cent. solution of carbonate of soda in a special kettle which stands in the operating theatre. The results are excellent, but the mass of dressings used for each case seems clumsy and wasteful. The subjects which elicited interesting discussion were: Resection of the Pylorus by Billroth, Treatment of Tubercular Peritonitis by König (Göttingen), of the Hypertrophied Prostate, of Carcinoma of the Rectum, of Shot Wounds of the Abdomen, of Empyema, of Bone Transplantation, and of Intussusception. The results obtained by König by washing out the peritoneal cavity in tuberculosis were as follows: Out of 134 cases (11 being in men and 120 in women), 65 per cent. were cured.—Bottein (Pavia) showed a series of instruments for cutting through the obstructing prostatic enlargement by means of a thermo galvanic knife. He claimed to have had great success, but was opposed by MacGill (Leeds) and others, who advocated supra-pubic prostatectomy.—Iversen (Copenhagen) read a paper on 247 cases of operation in rectal cancer. He employs Kraske's method generally. Local recurrence in nearly 60 per cent.—Billroth brought forward 124 cases of resection of the stomach and intestines; of these, 83 were performed by Billroth himself. In 41 cases the pylorus was resected (7 men, 34 women); the length of the operation was from one hour and a quarter to three hours and a half. Nineteen of these cases recovered and 22 died; of these 19, 5 died after ten months with recurrence, and the rest lived from one year to five years and a quarters, dying subsequently with recurrence.—Schede (Hamburg) showed two patients upon whom he had resected all the ribs from the second to the tenth for empyema. The lungs could be seen expanding slightly and the heart beating under the skin in the axilla. Schede has performed the operation eleven times, with three deaths (one from collapse, one from Bright's disease, and one from iodoform intoxication).—Senn (Milwaukee) demonstrated upon three dogs the value of inflation of the intestines with hydrogen gas in discovering shot wounds of the intestine. He was opposed by Bernays on account of the danger of further expulsion of fæces into the peritoneum by the gas pressure. It was stated that Dalton had used the inflation in one case, and the last had failed because the shot wound in the stomach had become plugged by a mass of rice.—Gluck (Berlin) and

Rubio (Madrid) adduced many examples of the value of bone transplantation. Smaller contributions of interest were: Kollman (Leipsic), who has photographed diseases of the urethra with Oberlander's modification of Nitze urethroscope.—Lewschin (Kasan), who showed by maps that stone in the bladder is chiefly met with in Central Russia, asserts it is more common in children and young adults, and believes that injudicious feeding is the most important causative factor.—Abarran (Paris), who has found psorospermia in three bladder tumours, and believes with Hutchinson, jun., that the parasite is, perhaps, causative. He stated that he has in one case met with an epithelial patch on the bladder like Paget's disease of the nipple.—Keen (Philadelphia) read an instructive paper on trephining and tapping the lateral ventricles.

OBSTETRICS AND GYNÆCOLOGY.

Professor OLSHAUSEN (Berlin) welcomed the members of the Congress, who were present in large numbers. Messrs. Zerone, Halbertsma, Péan, Simpson, Paget, Slawjanski, &c., were elected presidents for the various sittings; Messrs. Viet, Winter, Doran, Zerone, and Massini, secretaries.

Antisepsis in Obstetrics.—Mr. Galabin (London), who was to have opened the discussion, was unwell, and his paper was read.—M. Slawjanski (St. Petersburg) then reported on Antisepsis, and the results gained by it in Russia. His report was based on the statistics of fifty-two Russian lying-in institutions. He pointed out that antisepsis had been introduced everywhere in Russia, and adopted by every physician. The manner in which it was carried out in the institutions depended on the means at the disposal of the latter. In the four years 1886–89 the number of births in the fifty-two institutions was 76,646; the number of puerperal cases amounted to 6363, equal to 8·3 per cent.; the puerperal mortality was 290, equal to 0·38 per cent. In order to appreciate the influence which the special aims of the various institutions had on the number of cases and deaths, the institutions had been classified under five heads: (1) Obstetrical clinics of medical faculties; (2) lying-in institutions with schools for midwives; (3) lying-in institutions without such schools; (4) lying-in wards of hospitals with schools for midwives; (5) lying-in wards without any such schools. The statistics of 1889 were as follows: In the fifty-two institutions there were 21,280 births, of which 6019 (i.e., 28·28 per cent.) were first births; the number of operations was 3103 (i.e., 14·58 per cent.); complications (eclampsia, placenta prævia, and ruptura uteri) occurred in 290 cases (i.e., 1·36 per cent.). In 85·66 per cent. of the cases the confinement passed without fever; one rise of temperature was observed in 7·44, more than one in 6·9 per cent.; 60 (i.e., 0·28 per cent.) died of puerperal disease; 100 (i.e., 0·47 per cent.) from other causes. On the basis of his observations on the said material the author formulated the following propositions: 1. That antisepsis is most widely applied in the lying-in institutions in Russia, so that puerperal disease and mortality are decreasing in them from year to year, and already show quite satisfactory figures, as above—puerperal disease, 6·9 per cent.; puerperal mortality, 0·28. 2. That if the antiseptic measures are strictly and correctly taken, the presence of students is not likely to have any injurious influence. 3. That if the same antiseptic measures be always taken, the statistics of disease and death depend on the greater or less frequency of pathological, operative, and complicated deliveries in the institution. 4. That with strict antisepsis, large lying-in institutions are of more use to the country than small ones.—The next speaker was Prof. Stadfeld (Copenhagen). He confined himself mainly to the subject of midwives, and expressed the opinion that a generation would probably elapse before we had such midwives as were required. At present, one may be sure that when a midwife has assisted a physician at a difficult delivery, an epidemic would result. The speaker summed up his remarks by saying that antisepsis consistently carried out justified the existence of lying-in institutions, not only as places of instruction, but also as truly humane establishments. The adjunction to such institutions of branch establishments under the care of municipally appointed midwives appeared to him to be useless, and probably dangerous. The introduction of antiseptis into obstetrics had proved highly salutary to new-born infants, and scrupulous cleanliness ought to be prescribed to midwives. The environment of women in labour ought also to be antiseptic. Prophylactic syringing of the vagina by the midwife during labour did more harm than good. Cases of puerperal fever, even if not severe, ought to be reported to the medical officer of health at once, both by the midwife and by the physician.

At the meeting on Tuesday, Aug. 5th, Professor Halbertsma (Utrecht), hon. president, occupied the chair.—Professor Leopold (Dresden) showed a number of extremely interesting preparations of extra-uterine pregnancy—one of interstitial pregnancy, which ended in death by rupture of the fœtal sac; two in which rupture of the fœtal sac had taken place, and in which recovery was obtained by laparotomy (both in the beginning of pregnancy); a fourth of extra-uterine pregnancy, which was operated for before the rupture; a fifth of ovarian pregnancy of the ninth month two months after the death of the fœtus; and a sixth of tubo-ovarian pregnancy in the same stage, also after the death of the fœtus. In a seventh case a lithopædion, due to ovarian pregnancy and carried for twenty-five years, was removed. Prof. Leopold showed also a uterus extirpated for total prolapse, and the pregnant uterus of a cow, into the lymphatic vessels of which injections had been made.—Dr. Dährssen (Berlin) showed two women with their children. In both, owing to severe complications during labour, the not yet dilated external os uteri had been cut into in many places with scissors as deep as the vaginal insertion. In the first case, in which eclampsia rendered operation necessary, the age of the woman was twenty-three, and she had never given birth before. In the other case, also a first birth, the woman was forty-six; the complication was severe stricture of the vagina, and not only the os uteri but also the levator ani and the perineum had to be cut into. The author considers his operation free of danger, and very well fitted to accelerate delivery in cases in which the life of mother or child is in imminent danger.—Dr. Neugebauer (Warsaw) showed photographs of a case of suicide of a woman advanced in pregnancy. She had sprung out of a window, and lived for several hours after. At the necropsy a longitudinal laceration of the uterus was found. The uterus was empty, and the child lay dead, covered by the omentum, partly behind the liver. The placenta was detached, the pelvis broken in several places.—Professor Olshausen of Berlin showed a uterus which he extirpated nine years and a half ago for carcinoma. This is the longest period hitherto observed after the operation without recurrence. He also exhibited a uterus which he had extirpated with a part of the vagina for extreme prolapse of the vagina and the uterus and hernia of the bladder and the rectum. A woman was likewise shown whose uterus he had extirpated in the third month of pregnancy. She suffered from severe osteomalacia; the uterus was bent backwards and quite motionless. Another patient was introduced by him on whom he had performed laparotomy twice in one year for extra-uterine pregnancy. The child lay free in the peritoneal cavity, and is still living. A year later the patient became pregnant in the tube of the other side, and was operated on after rupture of the tube in an almost moribund condition.—Professor Calderini (Parma) showed preparations of three cases in which he had performed laparotomy during pregnancy, once for an ovarian tumour and twice for uterine fibroids. In all three cases pregnancy was preserved. In a fourth case there was a fibroid of the front labium, which completely filled the pelvis of a woman in labour, and rendered birth absolutely impossible. As there was still room enough to get to the feet of the child, he made the version, and by a vigorous pull at the child succeeded in forcing the tumour before the child quite outwards, and removing it. The labour then proceeded normally. In another case he showed a ruptured uterus in a case of uterus bicornis unicollis. The woman was saved by Porro's operation.—Dr. Van Ott (St. Petersburg) read a paper on the Law of Periodicity in the Physiological Functions of Women, in which he observed that, besides the nervous symptoms which appear in women at the time of menstruation, a series of variations of normal functions appeared periodically in a typical form, and had been observed with the help of accurate apparatus. He found that the curves of the temperature of the body, of blood-pressure, of muscular strength, of the capacity of the lungs, of the intensity of inspiration and expiration, and of the irritability of the nerves (measured by the patellar reflex), attained their greatest height shortly before menstruation, but then sank below the normal height during menstruation. Testing

experiments made on older women and on girls after or before puberty showed that in these cases the curves were almost straight lines, so that the numerous experiments and observations which he had made proved that the supposed undulation of the female organism was now ascertained as a scientifically founded law.—Professor Fritsch (Breslau) showed a considerable number of uteri extirpated by him for extensive prolapse of the uterus and of the vagina, with resection of a part of the latter.

At the fourth meeting, the Honorary President, Professor Simpson, occupied the chair. Professor Schatz (Rostock) read a paper on the Causes of the Rotation of the Fœtal Head round the Axis of the Pelvic Canal. The question of the rotation of the fœtal head was first thoroughly discussed by Naegele a century and a half ago, and yet it was still very far from having been cleared up. All the hard and all the soft parts of the pelvis had already been made responsible for it. The opinion recently brought forward by Laas that the explanation was to be sought in the pressure on the vertebral column of the fœtus was also untenable, for that could never cause rotation. Schroeder taught that the rotation of the head was caused by the rotation of the body of the fœtus, and that the latter was due to the flattening of the uterus after the flowing off of the liquor amnii. This also was wrong, for the rotation of the head was greater than that of the body. Schroeder was right, however, in believing that the *primum movens* was not the pelvis and its soft parts, but was to be sought higher up. Schatz represented the mechanism of the rotation thus: The obstetrical normal pelvis was by no means of the form of the Caucasian race; on the contrary, after stripping off all unevennesses, it was to be regarded as a canal of circular form, so bent that its entrance and exit planes were at right angles to each other. The deviation which race-formation caused in this form was compensated for by the capacity of configuration of the fœtal head. Mechanically the head was to be regarded as oval. The longitudinal axis of an oval body pushed forward in a narrow canal was synagonal with the axis of the canal. Now, how did the rotation take place? This followed from the eccentric insertion of the vertebral column in the head. This eccentric fastening held the head back, and the rotation of the head took place in consequence. So long as the uterus was shorter than the fœtus lying pressed together in it, the form-restoring power of the uterus acted as a forward driving force.—Professor Zweifel (Leipsic), in a paper entitled "Contributions to the Knowledge of the Mechanism of Labour," gave his opinion on the cause of rotation.

Treatment of Cystitis in Women.—Dr. THOMAS MORE MADDEN read a paper on this subject, in the course of which he said that of all the diseases which come before the gynæcologist no one was more frequently met with, more distressing in its effects, or more intractable to the means generally relied on for its relief, than cystitis. He had found, by clinical experience, that those measures most commonly employed in such cases were merely palliative, and may relieve, but *per se* can never cure well-established cystitis in women. He was not aware of any method by which that could be accomplished save by giving the bladder absolute physiological rest. For this purpose Dr. Emmet's operation—i.e., the establishment of an artificial vesico-vaginal fistula—may be successfully employed in some instances, but the practical objections to it were so great and obvious that for several years past he had abandoned this procedure in favour of another which was found more generally effectual, and quite free from the disadvantages of the operation referred to. His plan consisted, first, in the full dilatation of the urethral canal with the instrument exhibited, so as to paralyse the contractility of the sphincter vesicæ and canal, and thus produce a temporary incontinence of urine; and, secondly, in the direct application through the same instrument of glycerine of carbolic acid to the diseased endo-vesical mucous membrane. Any pain thus caused may be prevented by the previous topical application of a solution of cocaine, and the procedure recommended seldom requires to be repeated more than once or twice at intervals of a week or ten days. This treatment, combined with the internal use of boric acid, rarely failed to effect a rapid cure.

Hæmatocele and Hæmatoma.—Dr. T. VEIT recommended in the first place strict observance of the various names for effusions of blood in the parts surrounding the female genitals: Hæmorrhagia intra-peritonealis, the free bleeding into the peritoneal cavity; hæmatocele, the encapsuled bleeding into the peritoneal cavity; hæmatoma, the bleeding into the connective tissue. An encapsulation or hæmatocele never arises from a free bleeding into the healthy peritoneal cavity; if the bleeding stops, the blood is absorbed; if it does not stop, death is the result, for intra-peritoneal pressure on the bleeding place does not suffice. The preliminary condition of a hæmatocele is either complete encapsulation over the bleeding place or slow bleeding (the regular kind of bleeding in tubal pregnancy) into a peritoneal cavity, with more or less numerous adhesions. In hæmatoma the bleeding is staunched by the pressure of the connective tissue lined on the outside with peritoneum. The diagnosis of free bleeding into the peritoneal cavity is based on the general symptoms of anæmia without any objective symptoms in the peritoneal cavity, if every other internal bleeding is out of the question. Free blood in the peritoneal cavity cannot be felt either in a fluid or in a coagulated state. It is generally easy to distinguish between hæmatocele and hæmatoma, and experience teaches that in difficult cases it is unimportant. In both diseases the presence of a tumour is necessary. As to the treatment of hæmatoma and hæmatocele, agreement already exists. In the case of free bleeding into the peritoneal cavity, and with negative result of examination and severe general symptoms, the peritoneal cavity must be opened. With a view to rapid examination, Dr. Veit recommends the operation with high-raised pelvis, and, to render the staunching absolutely certain (if the bleeding come from a tube), the binding up of the uterina and spermatica in their continuity.—Mr. Lawson Tait said that he entirely agreed with Dr. Veit in the necessity of having a more distinct and definite nomenclature in the matter of the effusion of blood in the pelvis. The term "hæmatocele" might, he thought, be very conveniently employed to refer to hæmorrhage within the peritoneal cavity, and hæmatoma might be confined to hæmorrhages within the cavity of the broad ligament. The treatment of each was most diverse. Hæmorrhage into the peritoneal cavity demanded immediate abdominal section and ligature of the bleeding point, whilst hæmorrhage into the lower ligament might safely be left to itself in the great majority of cases. In hæmatocele all the natural hæmostatics were absent. In hæmatoma the conditions favoured immediate coagulation, and the hæmorrhage was therefore limited. In hæmatocele there was the chance of a convex swelling above the brim of the pelvis, with a more or less marked convex swelling in the cul-de-sac felt from the vagina. In hæmatoma the swelling was distinct and ovoid (whilst the fixation of the roof of the pelvis was concave), and was groined down to the bony walls of the pelvis like the roof of the crypt of a church.—Dr. Ephraim Cutter (New York) divided the American literature on electrolysis of myoma in the following manner: (1) Unoriginal, following the French method; (2) original, antedating the French method. He first employed it, with Dr. John Clough, on March 1st, 1871, on beef-steak, it giving the latter a whitish discolouration, which was due to the spherical bubbles of gas surrounding the muscular fibrillæ. He first tried it on the human subject on Aug. 21st, 1871, but the patient would not longer submit to the treatment and died. He afterwards improved his battery and needles, and recorded in 1887 50 cases—viz.: Non-arrests, 7; deaths, 4; arrests, 25; relieved, 3; absolute cures (that is, disappearance of tumours), 11.—Dr. Apostoli, in a very lengthy paper, enunciated his well-known theory on the advantages of electrolysis, and Mr. Dunnett Spanton reported several cases, in most of which electrolysis did good.—Dr. Murdoch Cameron opened the discussion on "Cæsarean Section as a Substitute for Craniotomy," and read notes of three successful cases he has had, which have been already reported in last week's issue of THE LANCET, and recommended its adoption in all suitable cases.—Dr. Sänger (Leipsic) spoke in favour of his own method as did several others.—Dr. Murphy (Sunderland) read a paper on the Treatment of Placenta Prævia, and gave a series of forty-two cases, with two deaths due to severe hæmorrhage occurring before treatment. He laid it down as an axiom that any obstetrician who allowed labour to proceed after clear evidence of the presence of placenta prævia should be held responsible for the life of the patient.

PUBLIC HEALTH.

In the Section devoted to hygiene and public health a subsection was formed for the special consideration of sanitary matters connected with railways. The questions discussed here concerned chiefly the proper provision and

maintenance of lavatory accommodation both on the trains and at the stations; improved accommodation for shelter and rest of railway *employés* and the more strict physical examination of railway servants, especially those upon whose intelligence and accuracy of sight &c. the safety of the travelling public so much depends. This subsection was almost exclusively attended by German medical men, and so far as England is concerned was not of very much practical interest. In the main section the chief subjects discussed of international interest were—(1) Prostitution, its moral and sanitary dangers to the State, and measures for combating it. Here the representatives of continental countries were almost all in favour of strict supervision and regulation of prostitutes; whilst the English-speaking members, while admitting the advantages of such supervision in special places and conditions, were opposed to its universal adoption, alleging that the only defensible grounds for such official intervention was the preservation of the public health; and the experience of the Continent showed that syphilis was more rife in those countries where such measures were adopted than in those where they were not in force. (2) The transmission of tuberculosis from the sick to the healthy, as well as by means of food supplies derived from tuberculous animals. The result of this discussion served to show that the profession everywhere is beginning to recognise the possibility and extreme probability of such transmission, and served to emphasise the need that exists for some independent and exhaustive inquiry, with respect to good supplies being undertaken by competent observers in order that we may know what the exact danger is, and the best means to be taken to guard against such danger.

The most interesting practical part of this Section's work was a visit to the Berlin sewage farms. On Wednesday, between two and three hundred members were taken by special train to Osdorf to the south-west of Berlin, where about one half of the sewage from the city is dealt with; a similar farm exists on the northern side for the sewage from that part of the town. Osdorf is some twelve or fourteen miles distant from Berlin, and hither the sewage is pumped through mains (taking about eight hours on its journey) to the highest points of the farm, and then conducted by channels and open courses over the land in all directions. The system of broad irrigation is adopted, and so efficient is the purification thus effected by the soil that the effluent as it comes away from the farm on its way to flow into the river is perfectly clear, bright, odourless, and tasteless, as many of the more enthusiastic of the visitors proved by tasting and drinking the same. From a sanitary point of view this huge experiment appears to be a perfect success, whilst from an agricultural standpoint the success is equally complete, as the fine crops of every description—cereals, roots, grass, potatoes, &c.—amply demonstrate. Whether the financial side of the question is equally satisfactory it was difficult to find out. The courteous engineer and director of the farms thought that at present the income derived scarcely covered all expenses, but was sanguine that at a very early date it would be a source of profit to the city. If it be asked why cannot all large communities thus solve "the sewage problem," it should be remembered that Berlin is most fortunately situate for such a system. Lying in the centre of a vast *sandy plain*, the very best soil for such a purpose, and where practically any amount of land can be obtained at a low price (as this sandy soil is of itself not of very high agricultural value), the conditions for success are exceptionally good; but it would certainly be money well expended if some of the members of our London County Council were sent with a qualified expert to examine and report whether London might not attempt something of the sort with the chance of a better result than the huge failure at Crossness. The total amount of land at present in use at Berlin is something like 16,000 acres.

NEUROLOGY.

The Formal Indications of Hypnotic Suggestion in Psychiatry and Neuro-pathology.—In this paper, by Dr. BÉRILLON (Paris), the author gives the results of his personal observation of the condition of 360 patients, who, he alleged, were cured by hypnotic suggestion. The cases included patients subject to the neurotic disease, to organic diseases of the nervous system, to neurasthenic and neuropathic disorders, to mental affections, and to the nervous affections of childhood. Of the 360, no less than 155 patients were subject to hysteria. Successful treatment of such cases had been the rule, failure the exception. From his results, Dr. Bérillon was convinced that the use of hypnotic suggestion was plainly indicated in hysteria and in the symptoms which follow upon it—namely, paralysis, contractures, spasms, tremors, &c. It was also indicated in cases of mono-symptomatic hysteria in the ordinary manifestations of that disease—as insomnia, anorexia, dyspepsia, and neuralgic affections. Commenting on his cases, he says: "Although it may be urged that it is impossible to induce a complete transformation of the general state of the nervous system, nevertheless, suggestion in the majority of cases has effected in a lasting manner the disappearance of symptoms on which the diagnosis of hysteria has been built." He gives several remarkable instances of this kind which he has successfully treated. He mentions fifteen cases of chorea in which he says the curative effects were not so rapidly brought about as in the hysterical patients. He has had occasion to observe five cases of paralysis agitans (Parkinson's disease), all in an advanced stage. In these the movements were arrested during artificial sleep, and a salutary condition of rest secured. The results obtained, although negative from the point of view of a cure, were encouraging in an affection looked upon as incurable. Of twenty epileptics treated in this way, he records only four favourable results, a man aged thirty-five, a woman of twenty-eight, a boy of eighteen, and a child of twelve years. In these the convulsive attacks disappeared, and have not since returned. Six other cases are recorded in whom the attacks have become less severe. Regarding the organic affections of the nervous system, he remarked that it was in those chronic affections which had been anatomically but not physiologically cured that most real success was obtained, and he had had numerous cases of hemiplegia, paraplegia, chronic myelitis much improved with a few sittings. In a young girl of twenty-five an aphasia of three years' standing had disappeared in four sittings. He had observed ten very conclusive cases of severe neurasthenia not only improved, but speedily cured by hypnotic suggestion. Among the neuralgias which had benefited he mentioned megrim, dental neuralgia, sciatica, chronic rheumatism, and gastralgia. After mentioning cases of mental maladies, and of the nervous affections of children which he had observed, he concluded by saying that "hypnotic suggestion constitutes in neuro-pathology and in psychiatry, a therapeutical procedure the value of which is frequently superior to that of other medications; and further, when applied in a rational method by medical experts, it has the advantage of being quite harmless to the patient."

LARYNGOLOGY AND RHINOLOGY.

Carcinoma of the Larynx.—HENRY T. BUTLIN, F.R.C.S., assistant surgeon and surgeon in charge of the department for diseases of the larynx, St. Bartholomew's Hospital, London, read a paper on "Operations for the removal of Intrinsic Carcinoma of the Larynx." The author has long been of opinion that it is desirable to found the selection of cases of carcinoma of the larynx for operation on pathological grounds. In a monograph on Malignant Disease of the Larynx, published in 1883, he made a study of the life history of a number of cases of carcinoma, dividing them into those of intrinsic and of extrinsic origin. He accepted the division made by Krishaber, and considered as intrinsic those carcinomas which arise from the ventricular bands, the ventricles, the true cords, and the parts below the cords; as extrinsic those which have their origin in the epiglottis, the ary-epiglottic folds, the inter-arytenoid fold, and the pyriform sinus. He found that carcinoma of extrinsic origin is a very grave disease, running a rapid course, affecting the lymphatic glands at an early period; while carcinoma of intrinsic origin is a much less formidable malady, not infiltrating so deeply or spreading so rapidly, and often running its course without affecting the lymphatic glands. He therefore recommended that in the immediate future the operation of excision of the larynx, whether partial or complete, should only be practised in cases of intrinsic carcinoma in which the disease is still limited to the interior of the larynx. The present paper is written with the intention of discovering how far this recommendation is justified by the results of practice. With the assistance of Dr. Kanthack the author collected 102 operations for in-

trinsic carcinoma, performed by various surgeons on ninety-five different patients. The 102 operations contained twenty-eight thyrotomies with removal of the diseased structures in the interior of the larynx, twenty-three cases of partial (generally half) removal of the larynx, and fifty-one cases of complete removal. The results are considered under three heads: (1) the deaths which were due to the operations; (2) the patients who were cured; and (3) the relief afforded to patients who were not cured. 1. Deaths due to the operations:—Three deaths were due to the twenty-eight operations of thyrotomy, seven deaths to the twenty-three operations of partial excision of the larynx, and sixteen deaths to the fifty-one operations of total excision. The total number of fatal cases is therefore twenty-six, of which six were due to pneumonia, broncho-pneumonia, or pleuro-pneumonia, and nine to some form of septic poisoning. The author thinks it very desirable that attention should be directed to the large mortality under these headings. He directs especial attention to the difficulties of maintaining the wound aseptic, and of preventing the entrance of liquids into the air passages. In spite of the difficulty of maintaining the wound aseptic, the majority of the cases of septic poisoning are probably of indirect origin, and depend on the introduction of poison through the lungs, so that our attention in the immediate future must be directed chiefly to the prevention of the entrance of liquids into the air passages, or to the removal of them as soon as possible after their entrance. He has treated several cases of thyrotomy and removal of the soft parts of the interior of the larynx without any tracheotomy tube after the removal of the first tampon tube by frequent insufflation with iodoform and by placing a piece of iodoform gauze over the external wound, and he believes that this method may perhaps yield the best results, provided that, in addition, the patient be laid well over on the side, and the head be placed only on a single small pillow, so that the wound may be in a certain sense dependent, and the various discharges may be less disposed to gravitate into the air passages. The patients should be fed through an œsophageal tube, and great care should be taken to prevent the entrance of liquid food during the introduction and removal of the tube. 2. Patients cured by operation:—Only those patients who were free from cancer at least three years after the last operation are considered to have been cured. Of the twenty-eight thyrotomies on twenty-seven patients (in one case the operation was repeated), three cases were quite successful, for one patient died four years after the operation of apoplexy, one was well eight years, and one twenty years after the operation. Of the twenty-three patients on whom partial excision was performed, four may be claimed as cured, for three were well at the end of three years and a half, four years, and four years after the operation, and the fourth died at the end of five years, of apoplexy, at the age of sixty. Of the fifty-one cases of complete excision of the larynx (in six of these the operation of thyrotomy had been previously performed), a good result can be claimed in eight, for seven were well at periods of three years and a half, four years, four years, four years and a half, four years and a half, five years, five years and three-quarters, and nine years after the operation, and the eighth died of pneumonia four years and a half after the operation. Fifteen out of ninety-five patients may therefore be claimed to have been cured by operation, a result which would compare favourably with the results of operations for cancer of the testicle, the tongue, the upper jaw and breast, were it not that the mortality following these operations on the larynx is so much greater than that due to operations on the testicle, tongue, and breast. Of the results of operations for recurrent disease little good can be said. The best hope lies in the success of the first operation. 3. Relief afforded to patients who are not cured:—After thyrotomy and partial excision of the larynx the patient is usually able to breathe and swallow perfectly well without the aid of any apparatus, and the relief may therefore be measured by the length of time which the patient enjoys free from the recurrence of the disease. After total excision the patient is seldom in so comfortable a condition, and his condition may even be very unsatisfactory. The tenure of life appears, too, to be precarious, for no fewer than six of the patients who had recovered from the operation and still remained free from recurrence of the cancer died of some other cause before the end of the three years' limit. Four of these patients died within a few months of pneumonia, asphyxia, or apoplexy. The possibility of removing carcinoma of the cords by intra-laryngeal means, as recommended by Professor Fränkel is mentioned, but the author thinks that it can only be applied as a very rare exception. From the results afforded by the cases in his tables, the author would strongly recommend that operations for the radical treatment of carcinoma of the larynx should be limited as far as possible to carcinoma of intrinsic origin in which the disease is still limited to the interior of the larynx, not merely on account of the situation and limitation of the disease, but because intrinsic carcinoma is a comparatively mild disease.

MILITARY MEDICINE AND SURGERY.

This Section was opened on Tuesday, August 5th, by Surgeon-General VON COLER, the head of the medical department of the Prussian army. He said: The internationality of medical science is fuller of promise for military medicine than for any other. It was not difficult to unite for the welfare of our sick and wounded while maintaining the fullest adherence to nationality and the most devoted obedience to patriotic feeling. If one ambulance corps made its laboriously gained acquisitions general by wider propagation, it would act in the interest of its own army also, for what was given in exchange to others to-day is helpful to its own sick and wounded to-morrow, if, in the vicissitudes of war, they should be thrown on the help and care of foreign nations. He referred to a medical report on the last campaign, which, he said, offered a rich and always objectively presented treasure of knowledge, both to medical and to military men. The medical report of the years 1884–5 till 1887–8, which completes the peace reports down to the present time, and describes the sanitary conditions of the army and the means used with a view to obtaining and preserving a satisfactory state of health, would be read with keen interest.

(FROM OUR SPECIAL CORRESPONDENT.)

Berlin, Aug. 10th.

The Congress came to an end yesterday, and was in every way a most successful gathering. The statistics just published show that 5737 members were present, and of these 358 came from Great Britain and Ireland, 179 from France, and 659 from the United States. Both from a scientific and social point of view the Congress must be looked upon as an eminently satisfactory meeting. The Town Council of Berlin, the medical men as a body, and the individual distinguished members of the Berlin medical profession did their very best to make the sojourn of the members of the Congress as pleasant as possible. The leaders of the profession in Berlin vied with each other in hospitality to the visitors, and the Congress was the means of establishing good fellowship amongst the medical men of the various countries. A notable and very pleasant feature was the great courtesy and cordiality shown to the French members of the Congress. They came to Berlin with some reluctance and some fear, and left Berlin full of praise for all the hospitality and for all the good and kindly feeling shown to them. If we review the scientific outcome, we can safely say that both the lectures in the general meetings, the discussions on the theses given out before, and the separate papers read in the several sections were all of the first order. One can only complain of the plethora of good things, and owing to this it was impossible to prevent subjects of great and general interest being discussed in the several sections simultaneously. Concerning the addresses in the general Sections, I mentioned briefly in my last letter Koch's observations on tuberculosis. I have to add that he stated that experiments with which he lately occupied himself have shown him that he has great hope that a cure for tuberculosis is possible, for he succeeded in arresting tuberculosis in animals. What this remedy is he did not divulge.

At the second general meeting Sir James Paget presided. M. Bouchard of Paris spoke of the Mechanism of Infection and Immunity. Experiments with guinea-pigs, he said, showed that when they are suddenly cooled their blood is not susceptible to the pneumonic virus. Slow cooling, on the other hand, considerably diminishes the power of the body to resist bacteria. From these and other experiments it seemed that the humours of the body in their normal healthy condition were sufficient to combat the noxious influences of the pathogenic microbes surrounding the organism. The anti-bacterial condition is not a dynamic or vital, but a chemical quality of normal

healthy blood, which unfits it for being a life-medium for bacteria. The condition of immunity might be due to accidental infection got over without fatal results, or to intentional infection kept within definite limits. Bacteria affect the body in eight ways. The most important are the chemical effects by which the products of the elaboration of micro-organisms influence the vaso-motor centre, so that the exit of the nutritive humours from the vessels is rendered impossible. By inoculation experiments with bacterial products of elaboration, the typical phenomena of inflammation, redness, swelling, &c., have been rendered impossible in the part inoculated, from which one may infer that the blood-vessels there have become impassable. If the whole vascular system is altered in the same manner, nutrition is, of course, severely disturbed and the health suffers. The salutary effect of inoculation is due to the circumstance that the chemical influences of bacterial products of elaboration are changed, so that they no longer resist the physiological function of the exit of the nutritive fluid from the walls of the vessels. As to natural immunity, it cannot be due to an anti-bacterial condition of the blood, but to the greater resisting power and functional activity of the vaso-motor centres in certain animals, which qualities guarantee the continuance of the nutritive action of the capillary system. The proof of this is that the resisting power of such animals is broken by the introduction of a substance which prevents diapedesis.—M. Bouchard was followed by Prof. Axel Key of Stockholm, whose address was on the development of puberty, and its relation to morbid phenomena among school children. He reported on the measuring and weighing of school children which have been customary for many years in Sweden and Denmark. The observations made on 15,000 boys and 3000 girls in high schools were as follows. In the seventh and eighth years of life boys grow considerably in height and weight, after which a delay sets in, which reaches its maximum in the tenth year, and lasts till the fourteenth year, when a considerable acceleration of growth suddenly sets in. This acceleration lasts till the end of the seventeenth year, and is greatest in the fifteenth year. This acceleration is at first in height, and later on in weight, in which respect it is greatest in the sixteenth year. The increase in weight lasts till the end of the nineteenth year, when the bodily development of youths seems to end. In girls the course of development is quite different. The decrease of growth after the eighth year is not so great as in boys, and yields in the twelfth year to a rapid increase in height; the acceleration in the increase in weight comes later, but outstrips it in the fourteenth year. In the seventeenth and eighteenth years the increase in height is but slight; the increase in weight, however, sinks almost to zero only in the twentieth; when growth may be regarded as ended. A remarkable thing is that boys grow faster than girls in height and weight till the eleventh year, then slower till the sixteenth, and then faster again. With slight variations these relations are the same all over Sweden. In Italy and the United States of America the period of puberty in girls ends at least a year earlier. The observation of 4000 children in elementary schools in Stockholm showed that the children of the poorer classes are shorter and lighter than those of the better off. This difference seems to be less pronounced in America and in the English cities. The decrease of growth before puberty lasts longer among the poor than among the better off, but, once begun, puberty comes quickly and ends in the same year in both classes. This proves that the organism of children possesses considerable elasticity, which, suppressed by unfavourable circumstances, nevertheless asserts itself with full force and recovers all that has been lost. If, indeed, the hindering circumstances are too powerful and too long continued, a permanent inferiority may result. That increase in height takes precedence of increase in weight may be regarded as an instance of a general law, especially if one considers Wretling's and Malling-Hansen's investigations regarding the growth of children in different seasons of the year, which showed that only a slight increase of height and a still slighter increase of weight take place between November or December, and March or April. From March or April till July or August a rapid increase of height takes place accompanied by a decrease of weight. Between August and November the increase of height is small, while that of weight is great. These observations show an annual repetition of the rules discovered for the time of the development of puberty. Now the question is whether they are physiologically founded, or are merely the fruit of external influences, such as school arrangements. Is the cessation of growth in winter due to obstructive influences of the winter climate or to much sitting in bad air in rooms? In this latter case the northern nations have every reason to combat the baneful influences of their long winter in every way, and especially to turn the summer holidays to the best possible account. How is it now with the health of school children during the development of puberty? Thorough inquiries have been made in Sweden and Denmark with a view to answering this question, in the first place only as regards chronic diseases, hereditary debility, chlorosis, habitual headache, curvature of the spine, &c. Myopia was also inquired into, with results in perfect agreement with those of Cohn, but it was left out of account in the discussion of general conditions, because it is perfectly compatible with good general health. It was found that 40 per cent. of the 15,000 boys in the middle—i.e., high—schools in Sweden were ill; that 14 per cent. suffer from habitual headache, and 13 per cent. from chlorosis. "We ought," he concluded, "to adapt our demands on the youthful organism better than now to its strength and power of resistance during the various phases of development, to promote the health and the vigorous bodily development of youth better than we do now. I therefore endorse from the bottom of my heart the words which Johann Peter Frank, the father of school hygiene, uttered a hundred years ago: 'Spare their fibre still, spare the forces of their minds, do not waste the energies of the future man in the child.'"

In the third general sitting the addresses read were by Dr. Horatio Wood on Anæsthetics and by Dr. Cantani on Antipyresis. The meeting was presided over by Dr. Sklifassowski of St. Petersburg. Thereupon Dr. Lassar announced that it was the intention, considering the favour which the medico-scientific exhibition found amongst the members of the Congress, to have a permanent museum of this kind, and Professor Virchow added that it had been proposed to him to establish an international sanitary convention for the furtherance of international hygiene. This was supported by Dr. Giampetro. After a short adjournment Professor Meynert of Vienna read an address on the Correlated Action of Different Parts of the Brain, and Professor Stokvis of Amsterdam a very suggestive and spirited address on Comparative Racial Pathology and the Capacity of Resistance of the Europeans in the Tropics, to which I hope to refer again in another communication. The meeting was closed by Professor Virchow in a few well-chosen words, whereupon several foreign delegates expressed their thanks and bid good-bye to their Berlin friends. John Billings spoke for America, Schnitzler for Austria, Chatary de Chata for Hungary, and Bouchard for France. M. Bouchard was most enthusiastically received. After referring to the success of the Congress, and to his great satisfaction and pride at having been present, he concluded by saying: "We depart, but we depart with the sentiments which correspond to the reception we have received." It is to be regretted that none of the English delegates had an opportunity given to them to express their thanks, also for the splendid reception they received, and the distinctions and hospitalities showered on them. This omission was simply due to an oversight, as both at the opening of the Congress, at the Sectional meetings, and at the various private gatherings, the English members were treated with great honour and cordiality. One feature of the Congress which must be mentioned is the part played by the local ladies' committee to entertain and look after the ladies who came to the Congress. Mrs. Leyden and many of the committee devoted a great deal of time and were most assiduous in their attention to the lady visitors, and I feel sure everybody left Berlin with the most pleasant reminiscences.

SCOTCH RÉUNION AT BERLIN.

In connexion with the Congress a pleasant meeting of the graduates of the Glasgow University and the various schools in the western district of Scotland was held on Friday evening, the 8th inst., at Wilhelm's Hotel, Unter den Linden. The chair was occupied by Professor William Macewen of Glasgow, and Dr. Frew of Kilmarnock acted as croupier. A very happy evening was spent, and "Auld Lang Syne" was sung in a style characteristic of the natives of North Britain. Dr. McLellan of Glasgow was appointed to arrange for a similar Scottish réunion in connexion with the next Congress at Rome.

Pharmacology and Therapeutics.

TELLURATE OF POTASSIUM IN THE NIGHT SWEATS OF PHTHISIS.

TELLURIUM has been known for some time to have a poisonous effect on dogs, producing vomiting and stupor, and tainting the breath for a considerable time with a garlic-like smell, and quite recently Dr. E. Neusser of Vienna has made trial of it in the form of tellurate of potassium as a remedy for phthisis, thinking it probable that such a substance might exert a bactericidal effect. He gave it in about fifty cases, and found that in by far the larger number one-third of a grain daily in the form of a pill was sufficient to arrest the night sweats, or at least to moderate them very perceptibly. In a few instances it was necessary to double this dose, and this was usually sufficient to bring about the desired result. No toxic symptoms were produced unless at least a grain was given daily for some considerable time, and then indigestion was set up. Of course the garlic-like smell which the breath always acquired was not very desirable, but it was not generally perceived by the patients themselves. Dr. Neusser thinks these preliminary trials afford sufficient ground for further observations on the action of this drug.

THE INJECTION OF ÆTHER IN INTESTINAL OBSTRUCTION.

Dr. Clausi mentions two cases of intestinal obstruction which were successfully treated after ordinary methods of treatment had failed, by injecting as high as possible into the bowel, by means of a long indiarubber tube, a mixture of three ounces of sulphuric ether with twelve ounces of fennel water. The injection produced a feeling of warmth all over the body with eructation of gas smelling strongly of ether, immediately after which a copious stool was passed, and all the symptoms of obstruction came to an end.

THE HEALTH OF THE ARMY IN 1888.

No. III.

THERE were 49,172 recruits medically inspected during the year, of whom 22,571, or 459 per 1000, were rejected. But as we have pointed out in previous reports this does not correctly represent the numbers found unfit for medical service, as it includes men under and over height, under chest measurement, and "apparent age not in accordance with General Orders," which are military rather than medical causes of rejection, and men found unfit within three months of enlistment. The last group ought clearly not to be included among rejected recruits, as they must have been passed as fit on medical inspection. If the correction be made of deducting from the numbers of examined and rejected those who ought never to have been brought before the medical officer, but refused in the first instance by the recruiting officer as being not eligible in accordance with the regulations, the result would be 12,721 rejected of 39,541 recruits, or 322 per 1000. Of the rejections on medical grounds the highest proportion was under the head of "muscular tenuity and debility" (underweight), amounting to 44·62 of the total examined, or 55·49 of the corrected total. The other most frequent causes of rejection (calculated on the corrected total) were: defective vision 45·45, varicose veins and varicocele 41·96, disease of heart 25·90, defects of lower extremities from fracture, contraction, luxation, &c., 18·71, flat-feet 17·35, loss or decay of many teeth 13·98, and malformed chest and spine 12·09 per 1000. There were 380, or 9·61 per 1000, rejected for syphilis. Among the causes of rejection within the first three months of service 6 were returned "under height," and 31 under chest-measurement. Is it possible they could have grown shorter and smaller after enlistment? Of the total number of recruits, 42,524 were examined by army medical officers, of whom 19,503 were rejected, or 459 per 1000, and 6648 by civil medical practitioners, who rejected only 1380, or 207·6 per 1000; but of those passed 1469 were subsequently rejected on joining their corps or depôts, raising the ratio to 428·5 per 1000. Of the recruits finally approved for service, 55·5 per 1000 were under eighteen years of age, 625·5 between eighteen and twenty, 312 from twenty to twenty-five, and 7 per 1000 were twenty-five years and upwards; so that upwards of two-thirds were under twenty years of age. Forty-six per cent. were between 5 ft. 4 in. and 5 ft. 6 in. in height, and 26 per cent. between 5 ft. 6 in. and 5 ft. 8 in. The chest measurement was under 33 in. in 11 per cent., but of these 4·6 were boys under seventeen years of age; 33 in. to 34 in., 33·5 per cent.; 34 in. to 35 in., 35 per cent.; and 35 in. and upwards, 20·5 per cent.

In the appendix to the report, Deputy Surgeon General Jameson has given an account of the medical transactions of the Nile Field Force in 1889. From July 8th to August 12th the average strength of the troops was 1529, the admissions into hospital were 117, and the deaths 3; these figures give an *annual* ratio of 798 admissions, and 20·46 deaths per 1000. Of the deaths, one was that of a private of the 20th Hussars killed in action at Toski; one was by accidental drowning, and only one from disease—a case of enteric fever at Assuan. But this does not correctly represent the effect of this short field service on the health of the men, for on their return to Cairo there was a marked increase of sickness and mortality there. During the five weeks succeeding their return, the admissions at Cairo were in the *annual* ratio of 2003, and the deaths of 42·09 per 1000, the former chiefly from fevers, dysentery, and diarrhœa, and the latter from enteric fever.

Surgeon-Major Notter, Professor of Military Hygiene at Netley, has given a report on the progress of hygiene for the year 1889. This includes a brief notice of some of the sanitary exhibits at Paris, of the most important enactments of the year on the subject of public health, the work of societies, the examinations for diplomas in sanitary science, and the various works on public health and vital statistics published during the year. He has also given a detailed account of the work done in the laboratory at Netley, some of which has an important bearing on the health of the soldiers. There were 67 samples of water analysed, of which 65 were from home stations and 2 from St. Helena. Of those from home stations, 23 were fit for use, 9 usable but requiring previous filtration, and 33 unfit for use on account of organic impurity and of excessive hardness and chlorides. Of the St. Helena samples, one was classed in the first and the other in the second group. We observe that fourteen samples were sent from Lydd in Kent, thirteen of them apparently from different wells, and that with one exception they were all reported "unfit for drinking purposes"; from one well, "twenty-seven feet deep in sand," the water "may be used for drinking purposes after careful filtration." Dr. Notter gives a tabular statement of experiments with Maignen's filtre rapide, export A, No. 3, which "show much the same results as have been before obtained from animal charcoal as a filtering material—viz., that the purifying power is practically exhausted in less than a month, and that the medium then begins to yield impurity to water passed through it." He also made some experiments with the filtre Chamberland, which "exerts considerable power in reducing all the organic constituents in the water." These experiments are still in progress, and the results will be given in next year's report. There is an interesting section on food, in which the results arrived at by the committee appointed to inquire into the question of the soldiers' dietary are stated, and especially as regards Colonel Burnett's system, which, if worked with the zeal, care, and sound judgment which he has shown, could not fail to be productive of most beneficial results to the soldier. The only point on which we entertain great doubts is whether there will be found many commanding officers who will take the same practical interest in the welfare of their men which he has so clearly shown. A favourable report is given of some samples of preserved roast beef packed by the Eastman Canning Company, but an unfavourable one of "army food," prepared by the Armour Canning Co. An unfavourable report was also made on samples of "preserved vegetables" received from Supply Reserve Depôt, Woolwich Dockyard. There are several other interesting matters noticed in Dr. Notter's report. Brigade-Surgeon Godwin gives the usual "list of operations performed at the Royal Victoria Hospital, with short abstracts of the most important cases." These were 48 in number, of which 32 were completely and 15 partially successful; only one, for ankylosis of knee-joint, failed, and there were no deaths. Among the successful cases were four of hepatic abscess "opened by incision and drained." The antiseptic dressing, with the double cyanide of mercury and zinc recommended by Sir Joseph Lister, was tried, with the result that "it cannot

fail to be a most valuable aid to the surgeon if it only prove to be of a sufficiently stable nature to stand storage." There is a report, also by Mr. Godwin, upon the military exhibits in the Exhibition in Paris in 1889, which is valuable as not only giving an account of the various objects shown, but also a summary of the regulations in force in the French army for the medical service with troops in the field, and for the auxiliary hospitals formed by the Société Française de Secours aux Blessés, and two other Red Cross Societies. The report is illustrated by drawings of the Appareil Bry. "This apparatus, called after the inventor, Colonel Bry, is an arrangement for rendering it possible to carry sick and wounded men on stretchers fairly comfortably in covered goods waggons. A goods waggon can carry twelve loaded stretchers—six at either end—in two tiers of three and three." It is stated that "there is a widespread opinion that France suffered greatly through spies who carried on their business protected by the brassard of the Geneva Convention, in some of the foreign ambulances. It is therefore ordered that in future wars all foreign ambulances must conform to Act 18, Décrêt 3me Juillet 1884, and act with and under one of the French societies—not independently."

We cannot close our notice of these valuable reports by the Professor of Hygiene and the Assistant Professor of Military Surgery without expressing a regret that no similar contributions have been made by the Professors of Military Medicine and Pathology, or their assistants. The Report and Appendix afford good evidence of satisfactory work done by the medical officers, and are most creditable to the Department.

LEPROSY AT TRINIDAD.

THE annual report of the Trinidad Leper Asylum issued by the medical superintendent, Dr. Beaven Rake, is always interesting. That for the year 1889 is now before us.[1] It is drawn up on a systematic plan and bears witness to the zeal with which Dr. Rake performs his official duties, and pursues his scientific researches into the nature of the disease. The report opens with details as to administration of the asylum, which are of course mainly of local interest. It may here be noted, however, that the two great difficulties besetting asylum management—viz., the control of the immoral and of the criminal leper—are adverted to, and the opinion is expressed that little short of converting the asylum into a prison could successfully cope with these evils. If compulsory isolation and segregation come to be enforced, such a conversion would practically be made. At the same time, for the sake of the majority of lepers who are neither immoral nor criminal, it would be a hardship to compel them to feel that they were immured for life in a prison. Dr. Rake says that legislation to prevent the harbouring of lepers is badly wanted. Under the head of "Statistics" we learn that the number of admissions and of deaths was the same as in 1888, the mortality being 7·4 per cent., the lowest recorded at Trinidad. Of the 16 deaths 7 were from kidney disease, in 2 of which there was tuberculosis of viscera; 1 patient died from sunstroke; 1 from Addison's disease; 2 from cerebral causes; 1 from phthisis and tuberculosis, 2 from exhaustion and ulceration; 1 from heart disease; and 1 from asphyxia due to leprous disease of the larynx. Of intercurrent diseases one-half were cases of malarial fever. Speaking of contagion, Dr. Rake points out that neither the case of Father Damien nor that of the inoculated convict is conclusive on the point, since they lived in places infested with leprosy. At the same time he considers that since every leper may possibly be a centre for the dissemination of bacilli and spores, segregation is advisable. He makes a suggestion that the difficulty in tracing evidence of direct contagion may depend on the fact that the bacillus requires an intermediate host for its development. He reminds us, too, that there have been unsuccessful attempts at inoculation to set against the alleged successful one. He also corrects certain inaccuracies in Archdeacon Wright's work, "Leprosy, an Imperial Danger," regarding the forms of leprosy most prevalent in Trinidad, the liability of foreigners in Molokai, and the fact that only one practitioner out of thirty or more in Trinidad gave an affirmative answer to Archdeacon Wright's query as to the transmission of leprosy by vaccination. For his own part Dr. Rake is "not prepared to admit ..... that leprosy is contagious in the ordinary sense of the word; but," he thinks, "that segregation might do good in Trinidad as it has done in Norway by lessening the number of infected foci." In view of the discrepant statements which have been made regarding the great increase of leprosy in Trinidad, and the fact that the number of cases of which he has knowledge is far below that given by some writers, he suggests that next year a leper census might be taken in connexion with the general census. Since one-third of the cases are those of coolies he thinks it possible that some of these may enter the colony already infected in India, but still in the incubation stage. He describes some examinations he has made of the soil over graves of lepers to ascertain whether the bacillus or its spores comes to the surface, but he only found putrefactive bacteria, and that the earth stained deeply, probably from chemical changes. A like negative result followed his search for the bacillus in the favourite foods of coolies and negroes—viz., salt pork, salt fish, and pigeon peas. He has continued to make culture experiments and inoculation on animals but without result. In view of the statement that certain diseases, as variola, erysipelas, and phthisis, are antagonistic to leprosy he has studied the question of protective inoculation, but the inquiry is difficult and no satisfactory result has been attained. Speaking of treatment, he bears testimony to the efficacy of chaulmoogra oil in alleviating the disease, and thinks creolin as an antiseptic dressing preferable to carbolic acid. He has been trying with good result the treatment of perforating ulcer by free incision right through the foot, and plugging the wound, which is allowed to heal by granulation. Details of some rare cases are given, and the question of kidney disease is discussed. It would appear that bacilli are rarely found in the kidneys, and that the chronic lesions of these organs are referable to the deranged nutrition of the skin, being more chronic in the anæsthetic than in the tubercular cases, probably because in the latter an outbreak of tubercles produces more sudden change than the slower progression of the cutaneous affection of the anæsthetic form. A case is recorded illustrating the difficulty in diagnosis between congenital syphilis and early leprosy, and the advocacy of excision of the first tubercles, and the use of red iodide of mercury ointment in the tubercular form are also dealt with. The report closes with a warm tribute to the self-sacrificing labours of the Dominican sisterhood in the care of the sick. In an appendix are statistical and other tables dealing with the topics treated in the text of the report.

[1] Trinidad Leper Asylum. Report on Leprosy and the Leper Asylum, for the year 1889. By Beaven Rake, M.D. Lond. Port of Spain: The Government Printing Office. 1890.

THE PARIS MUNICIPALITY AND THE CONTAGIOUS DISEASES ACT.

A VERY important discussion has been held, followed by the adoption of measures of reform, by the Paris Municipal Council on the vexed question of the prophylaxis of syphilis. A commission had been appointed to report on the whole subject, and the report was drawn up by M. Émile Richard, now President of the Municipal Council. This report, printed in Blue-book form, extends over 150 pages, and is full of statistics, charts, information of all sorts, gathered in many different countries, and all pertinent to the question at issue. M. Richard is to be congratulated on the broad and liberal spirit he has displayed and on the originality of some of his propositions and arguments. The subject is the more difficult to treat as circumstances all combine to conceal the actual facts. M. Richard protests against the treatment of syphilis in separate hospitals, as tending to keep patients away. A few cases are treated in the general hospitals, but as a rule women go to the Hôpital de Lourcine, and men to the Hôpital du Midi, thus proclaiming to all who see them go in and out of the hospitals the unpleasant fact that they are suffering from venereal disease. While the poorer people do not like to go to these hospitals the richer patients too often are ashamed to consult their ordinary medical advisers, and resort to quacks instead. It is, therefore, not only difficult, but absolutely

impossible to estimate the number of cases of venereal disease that occur in the population. On the other hand, if the total number of cases cannot be ascertained, the fluctuations in the prevalence of the malady can be noted, and this with sufficient precision for practical purposes. For instance, from 1872 to 1888 the number of cases of syphilis, simple chancres, gonorrhœa, &c., treated in the three hospitals—the Midi, Lourcine, and St. Louis—was 118,233, divided into 60,438 syphilitic and 57,795 other venereal diseases. This gives an annual average of 3555 and 3399 respectively. During the same period the number of out-patients for the Midi was 440,658, annual average 25,921; for Lourcine 54,973, annual average 3233. At St. Louis other diseases are included in the statistics, but the venereal cases are estimated at an annual minimum of about 20,000. From these figures M. Richard deduces that for the seventeen years in question the number of attendances annually was 6954 for in-patients and 49,154 for out-patients. As out-patients are seen on an average three times, this would make annually 16,385 different cases of venereal disease among the out-patients. Adding in-patients, we have an average annual total of 23,339 different individuals treated for venereal disease during the seventeen years in question at the three hospitals.

The ascertaining of this average is of great legislative importance, because the figures vary considerably at certain special periods which correspond with alterations in the manner prostitution was controlled by the police. Detailed statistics are given which show that the entries at the three hospitals fell 8·16 per cent. from 1872 to 1876; rose 49·34 per cent. from 1877 to 1882, and fell again 12·82 per cent. from 1883 to 1887. For the out-patients at the Midi the record shows a decrease of 22·03 per cent., an increase of 125·04 per cent., and a decrease of 39·38 per cent., during the three same periods. At the Women's Hospital of Lourcine the increase during the period of 1877 to 1882 was equal to 238·73 per cent. At St. Louis there was also an enormous increase during those years. From these figures we may with certainty conclude that whatever the total number of cases of venereal disease throughout the population may be, there was a remarkable increase of this disease from 1877 to 1882. Other statistics are then given to show that the mortality from syphilis, but especially the infant mortality, also increased in the same period. In 1882 it had almost doubled. As the population question is, for political and military reasons, of such vast importance to the French nation, M. Richard insists on the fatal effects of syphilis as productive of miscarriages and infantile mortality.

Having thus ascertained that venereal disease was more prevalent than usual from 1877 to 1882, the question arises as to what were the special causes at work during that period. First, there was a considerable augmentation in the Paris population, due in a measure to the Universal Exhibition of 1878; but far more important than this is the reduction in the number of women submitted to police control and alterations in the rules relating to such control. Thus there were 4242 women inscribed on the registers in 1872; 4603 in 1873. Then the number gradually decreased to 4297 in 1877, to 4157 in 1878, to 3991 in 1879, to 3582 in 1880, to 3160 in 1881, to 2839 in 1882, and to 2816 in 1883. Then the number rose again to 2910 in 1884, reached 3911 in 1885, and 4681 in 1887. Other figures are given to show that when the total number of women under sanitary control had decreased those confined in licensed houses increased; while of late years these latter have decreased, though there has been less venereal disease; but, on the other hand, a greater number of women living outside licensed houses were under control. From this it would seem that the tendency to drive women from the street into licensed houses does not improve public health. But on this secondary phase of the question the evidence, if that of the other towns besides Paris is taken into consideration, is very confused and contradictory. The broad and very significant fact remains that, during the years immediately preceding and following the Great Exhibition of 1878, when there was an immense increase in the population of Paris, and many labourers came from all parts to work at the Exhibition, the number of women controlled decreased, and the control was less efficient. At the same period venereal disease became much more prevalent.

To improve the efficiency of the control it will be necessary to modify the method of its application. As it is, the rules are of so restrictive and arbitrary a character that most women try to make good their escape. With numerous statistics in support of his contention, M. Richard argues that, on an average, women do not remain more than from three to four years inscribed on the register. The police have, he maintains, altogether outstepped the law. Their duty is to protect public health. This they have, comparatively speaking, neglected, but have issued a sort of sumptuary law decreeing that women shall not dress in a manner calculated to attract attention; that they must keep their windows closed, and well supplied with curtains; that they must not burn a lamp close to the window, or go out in the street till half an hour after the gas has been lighted. They are also forbidden to walk in a large number of streets. If these and many other rules are not observed, these unfortunate women are arrested and imprisoned. The fear of imprisonment because of illness is the least of the anxieties that beset these women. The prefect of police himself admitted in an official document that, if the administration only punished women who were irregular in attendance for medical examination, they would all be punctual. But, if we look at the figures, we find that while women, in 1888, were detained and imprisoned 10,355 times, there were only 557 cases of illness. On an average, out of every four women incarcerated in the prison of St. Lazare, only one is ill, and the three others are being punished for some infringement of the above-mentioned regulations. M. Richard, therefore, concludes that as the number of women under police control increases, so does the prevalence of venereal disease decrease; but, on the other hand, the method of control is exercised in such a manner as to alienate the women and make them seek by every possible stratagem to evade the law.

On all these points, M. Richard is not likely to meet with much opposition; this is not the case, however, when he raises the question of voluntary inscription. He quotes Parent-Duchatel, who states that during the sixteen years from 1816 to 1832, out of 1000 women inscribed as prostitutes on the police books only 57 were forced to submit to such inscription. Dr. Jeannel, at Bordeaux, found that from 1853 to 1861, out of 1000 women, 174 had been forced to submit to the control. The proportion of women, therefore, who volunteer and ask to be inscribed amounts, for the two towns, to 94·26 and 82·6 per cent. We would object, however, that these figures are rather distant and ancient, and by themselves scarcely suffice. Doubtless, if the reforms proposed by M. Richard are carried out, the number of women who will voluntarily submit to sanitary control is sure to be greatly increased. But the fact that compulsion can, if necessary, be applied, is, we take it, the principal reason why so large a number do not wait till they are forced, but, of their own accord, volunteer to submit themselves to the police regulations and sanitary control.

(To be continued.)

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Wimbledon Urban District.—Wimbledon enjoys a small death-rate, and last year's rate was only 10·9 per 1000 living. The year was also free from any epidemic other than influenza, but certain cases of scarlet fever and diphtheria caused anxiety, owing to the difficulty in tracing their source. A detailed account of these occurrences is given by Mr. Pocklington, and during their continuance some good use was made of the local hospital for infectious diseases. Although in most cases the origin of the infection could not be made out, yet occasion was taken to remove from the premises affected such unwholesome conditions as were detected, and as were likely to lead to any spread of the disease. Bakehouses, slaughterhouses, and dairies were inspected during the year, and in one case the cows were found to occupy a shed which was in a filthy state. Some good work was carried out in the way of road-making, and additional improvements were effected in the drainage works. It is also added that for six months of 1889 the sewage was treated by lime and herring brine, according to the "Amines process"; and it is stated that under this system an inodorous product was produced, and that the

crops irrigated with the effluent were as luxuriant as under the former process of using lime and alumina, which was quite as costly.

Ulverstone Rural District.—In this district the death-rate for 1889 was 14·7 per 1000. In reviewing in some detail the various occurrences of infectious diseases, Dr. A. Thompson expresses his concurrence in the view that certain of these do at times arise independently of antecedent cases. Each parish is considered separately as to its sanitary requirements, and the action which has been adopted or recommended is specified. No action has as yet been taken under the Dairies, Cowsheds, and Milkshops Order; but Dr. Thompson states that, as the results of his inspections, he is convinced that measures should forthwith be adopted in this direction.

Grange Urban District.—This small urban district is also within Dr. Thompson's jurisdiction, and he reports that some valuable sanitary work—including drainage, sewage disposal, purification of streams, &c.,—has been carried out or finally projected. Indeed, it is claimed that the place should rank as a health resort, both on account of its natural attractions and of its sanitary circumstances. The death-rate for 1889 was only 10·0 per 1000 of the estimated population.

Ulverstone Urban District.—This is another area within Dr. Thompson's combined district, but, unlike the others, it had a death-rate of no less than 25·0 per 1000 in 1889, and as high an average for the three previous years as 22·0 per 1000; but it is not clear that, in making the calculation, the so-called foreign deaths in the workhouse have been excluded and duly allotted to their respective sanitary districts. The water-supply is stated to be satisfactory, and no special sanitary defect is referred to. But whilst it appears that pail-closet contents are removed through the agency of the local board, it would seem that the duty of cleansing the ashpits has been cast on occupiers by means of by-laws, an arrangement which must fail to secure sufficient frequency of scavenging unless all the inhabitants have ample garden ground—a condition but rarely met with in urban districts.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5040 births and 3578 deaths were registered during the week ending Aug. 9th. The annual rate of mortality in these towns, which had been 17·6 and 19·6 per 1000 in the preceding two weeks, declined last week to 19·2. The rate was 18·8 in London and 19·5 in the twenty-seven provincial towns. During the first six weeks of the current quarter the death-rate in the twenty-eight towns averaged 18·3 per 1000, and was 2·1 below the mean rate in the corresponding periods of the ten years 1880–89. The lowest rates in these towns last week were 14·3 in Blackburn, 14·4 in Huddersfield and in Hull, and 14·5 in Nottingham. The rates in the other towns ranged upwards to 24·4 in Sheffield, 25·8 in Manchester and in Plymouth, and 28·3 in Preston. The deaths referred to the principal zymotic diseases, which had risen from 526 to 728 in the preceding three weeks, further increased last week to 751; they included 410 from diarrhœa, 152 from measles, 80 from whooping-cough, 50 from scarlet fever, 34 from diphtheria, 25 from "fever" (principally enteric), and not one from small-pox. The lowest death-rates from these diseases were recorded in Halifax, Sunderland, and Bolton, and the highest rates in Norwich, Sheffield, Leicester, and Preston. The greatest mortality from measles occurred in Cardiff, Manchester, and Bradford; from scarlet fever in Manchester and Liverpool; from whooping-cough in Birmingham, Birkenhead, Sheffield, and Norwich; from "fever" in Leicester; and from diarrhœa in Norwich, Sheffield, Leicester, and Preston. The 34 deaths from diphtheria included 22 in London, 4 in Manchester, and 2 each in Portsmouth, Salford, and Newcastle-upon-Tyne. No death from small-pox was registered in any of the twenty-eight towns. No small-pox patients were under treatment in the Metropolitan Asylum Hospitals at the end of the week, and only one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of last week was 1493, against numbers increasing from 1067 to 1439 on the preceding eleven Saturdays; the new cases admitted during the week were 118, against 135 and 168 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 185 and 215 in the previous two weeks, declined again to 197 last week, but exceeded the corrected average by 8. The causes of 67, or 1·9 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Leicester, Hull, and in six other smaller towns. The largest proportions of uncertified deaths were recorded in Nottingham, Newcastle-upon-Tyne, Brighton, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·1 and 19·2 per 1000 in the preceding two weeks, further declined to 17·2 in the week ending Aug. 9th, and was 2·0 below the rate which prevailed during the same period in the twenty-eight English towns. The rates in the eight Scotch towns ranged from 10·9 in Perth and 11·3 in Leith to 18·5 in Dundee and 19·3 in Glasgow. The 445 deaths in the eight towns showed a decline of 53 from the number in the preceding week, and included 28 which were referred to whooping-cough, 18 to diarrhœa, 11 to measles, 4 to scarlet fever, 4 to "fever," 2 to diphtheria, and not one to small-pox. In all, 67 deaths resulted from these principal zymotic diseases, against 89 and 90 in the preceding two weeks. These deaths were equal to an annual rate of 2·6 per 1000, which was 1·4 below the mean rate last week from the same diseases in the twenty-eight English towns. The highest death-rates from these diseases were 3·1 in Perth and 3·9 in Glasgow. The fatal cases of whooping-cough, which had been 36 in each of the preceding two weeks, declined to 28 last week, of which 13 occurred in Glasgow, 7 in Edinburgh, and 4 in Dundee. The deaths referred to diarrhœa, which had risen from 11 to 24 in the previous three weeks, declined to 18 last week, and included 12 in Glasgow. The 11 fatal cases of measles showed a further decline from recent weekly numbers; 8 occurred in Glasgow and 3 in Dundee. Three of the 4 deaths from "fever," and 3 of the 4 fatal cases of scarlet fever, were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 79 and 77 in the preceding two weeks, further declined last week to 64, and slightly exceeded the number in the corresponding week of last year. The causes of 52, or nearly 12 per cent., of the deaths in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 20·7 and 17·4 per 1000 in the preceding two weeks, rose again to 18·6 during the week ending August 9th. During the first six weeks of the current quarter the death-rate in the city averaged 20·3 per 1000, the rate for the same period being 18·0 in London and 17·5 in Edinburgh. The 126 deaths in Dublin showed an increase of 8 upon the number in the previous week; they included 8 which were referred to diarrhœa, 3 to whooping-cough, 2 to "fever," 1 to measles, and not one either to small-pox, scarlet fever, or diphtheria. Thus the deaths from the principal zymotic diseases, which had been 9 and 12 in the preceding two weeks, further rose to 14 last week; they were equal to an annual rate of 2·1 per 1000, the rate from the same diseases being 4·2 in London and 2·5 in Edinburgh. The fatal cases of diarrhœa, which had been 2 and 3 in the preceding two weeks, further rose to 8 last week. The 3 deaths referred to whooping-cough exceeded by 1 the number in the preceding week, and the 2 fatal cases of "fever" corresponded with those in the previous week. The deaths from measles, which had been 2 and 5 in the preceding two weeks, declined to 1 last week. The deaths both of infants and of elderly persons showed a further increase upon recent weekly numbers. No inquest cases and no deaths from violence were registered during the week; and 43, or more than a third, of the deaths occurred in public institutions. The causes of 12, or nearly 10 per cent., of the deaths were not certified.

THE SERVICES.

ARMY MEDICAL STAFF.—First-class Staff Sergeant Frederick Smith, from the Medical Staff Corps, to be Surgeon, ranking as Captain (dated March 30th, 1890). The undermentioned Surgeons on probation to be Surgeons, ranking as Captains (dated July 29th, 1890):—Arthur Ernest Smithson, M.B.; Philip Henry Whiston;

George Somers McLoughlin, M.B.; Henry Jules Parry, M.B.; Wilfred William Ogilvy Beveridge, M.B; Robert William Henry Jackson, M.B.; Robert J. Watt Mawhinny; George Arthur Theodore Bray; Bernard Forde, M.B.; and John David Ferguson.

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon Thomas William Richardson resigns his commission (dated Aug. 13th, 1890).

VOLUNTEER CORPS. — *Royal Engineers* (Fortress and Railway Forces): 2nd West Riding of Yorkshire (Leeds): James William Henry Brown, Gent., to be Acting Surgeon (dated Aug. 9th, 1890).—*Rifle:* 1st Volunteer Battalion, the Sherwood Foresters (Derbyshire Regiment): Surgeon and Surgeon-Major C. A. Greaves, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Aug. 9th, 1890).—1st Volunteer Battalion, the King's (Shropshire Light Infantry): Acting Surgeon J. E. Brooks resigns his appointment (dated Aug. 9th, 1890).—3rd (Sunderland) Volunteer Battalion, the Durham Light Infantry: Surgeon R. J. Collie, M.D., resigns his commission (dated Aug. 9th, 1890).—2nd Volunteer Battalion, the Lincolnshire Regiment: Acting Surgeon H. P. Berry, M.B., to be Surgeon (dated Aug. 9th, 1890).—4th Volunteer Battalion, the South Wales Borderers: Honorary Assistant Surgeon A. J. Shepard resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Aug. 9th, 1890).

VOLUNTEER MEDICAL STAFF CORPS. — The London Division: William Sydney Fincham, Gent., to be Acting Surgeon (dated July 26th, 1890).

Correspondence.

"Audi alteram partem."

THE ROYAL COMMISSION ON VACCINATION.

To the Editors of THE LANCET.

SIRS,—In an article on the second report of the Vaccination Commission, you have selected for adverse remark three points of rather minor importance from my own evidence, and in each of these you have misapprehended the evidence given and have inadvertently fallen into errors which you will be good enough to admit correction of.

1. At the small-pox hospital of the South Dublin Union in the epidemic of 1871–72, there were 29 out of 36 nurses not revaccinated, all the 36 escaping small-pox equally. Sir William Savory asked me whether I had gone behind that statement, as made by the medical officer of the hospital in a communication to the *Medical Press and Circular*, in order to inquire whether those nurses had gone through an attack of small-pox before. I replied that I had made no such inquiry, but had given the reference, so that it was open to anyone to inquire for himself. Whether Sir William Savory has inquired for himself I cannot say. He read a letter which you erroneously say related to the incident of 1871–72; it bears upon its face that it relates to "the outbreak of 1879–80," and it does not touch the statement of the medical officer of the hospital in 1871–72. So far as concerned the mere probability of the nurses, all or any of the 36 (including the never revaccinated) having gone through the small-pox before they were employed in 1871–72, I explained that the very next sentence of my article covered that probability, such as it was—namely, that "nurses in small-pox hospitals are not rarely chosen from among those who have had small-pox." It will thus appear that no reason was shown why I should add to or take away from what I had written.

2. On the fourth day of my examination I was asked to state my opinion, Yes or No, whether vaccination gave any protection from small-pox. I prefaced my reply with the remark that "I had been desirous of avoiding the broad question;" which goes to show, you say, that "up to that time" I had avoided letting my opinion be known, the words "up to that time" being left so ambiguous that they might be taken to mean the time of my engagement to write for the "Encyclopædia Britannica." What your article means, of course, is up to the time of Question 5430 being put. It is the merest nonsense to say that I had avoided stating my real opinion. The critics of my book "Jenner and Vaccination," published in March, 1889, had no difficulty in finding passages where it was succinctly stated; and one of those passages had already been made the subject of a series of questions (5119 to 5128), by various members of the Commission. The answer to Mr. Dugdale's question, which seems to you to "clear up much that was inexplicable" in my "recent writings," was perfectly well understood by those who heard it, as it merely reaffirmed what I had stated more explicitly several times before, that I wished to avoid a discursive argument, in order that I might get attention fixed upon the particular points which I had decided to give evidence upon and had specified in the outline notes sent to the chairman.

3. You say that I "dealt generally with the whole of the Sheffield experience" in a certain way which you think inadequate. Neither generally nor particularly did I deal with the whole of the Sheffield experience; but I answered as I was bound to answer a specific question (5471) that was put to me, whether I thought a certain aspect of the Sheffield evidence more important than a certain other aspect of it. I am informed that the whole of the Sheffield experience will be dealt with by a future witness.

I am, Sirs, your obedient servant,

Aug. 12th, 1890. C. CREIGHTON.

*** We cannot admit that the points referred to are of "minor importance." Thus, as to the first one, in answer to Sir Wm. Savory's question, "And it is a very important statement?" Dr. Creighton answered "Yes, if you please" (Question 5274); and he also thought the matter of sufficient importance to secure its circulation throughout the English-speaking world by means of the "Encyclopædia." As to Dr. MacCabe's letter of 1879–80, the only object it could have served was to indicate a practice which he believed to have existed in 1871–72; indeed, Sir Wm. Savory quoted another letter, in which the writer said: "To my recollection the usage was that all attendants on the sick, who had not had small-pox, were vaccinated immediately on taking up the duty." With regard to Dr. Creighton's second point, his admission that he wished to have avoided giving an answer shows to our minds that he did not regard his previous statements as clear on the point, and in our original leading article of Nov. 24th, 1888, dealing with his contribution to the "Encyclopædia," we felt that Sir John Simon's term, a "lover of paradox," could well be applied to what he had written. The admission is of first importance to a number of people who have not seen, as we did from the first, that Dr. Creighton "has no claim to be considered an authority upon practical medicine." We are not clear as to Dr. Creighton's third objection; the questions and answers had to do with the "Sheffield epidemic" (Questions 5471 and 5473).—ED. L.

To the Editors of THE LANCET.

SIRS,—The writer of the article on the Second Report of the Royal Commission on Vaccination in THE LANCET of Aug. 9th remarks: "The one thing we do know is that vaccine lymph, whatever its origin, has been proved to grant to people coming into the closest contact with small-pox patients an almost immediate immunity from that disease." Turning to p. 311 of the same number, I find it stated in the Report of the Health of the Army for 1888 that "small-pox prevailed to some extent at Lucknow, Mooltan, and Meerut. At the first there were 32 cases, with 5 deaths, in a strength of 2760; at Mooltan 10 cases and 1 death in 844 men; and at Meerut 8 cases and 1 death in a force of 2248. All these cases had been revaccinated." Now I cannot see the value of the "almost immediate protection" in these cases. It is fair to suppose that had small-pox occurred in a badly fed and overworked population living in crowded and filthy slums instead of a picked population, the rate of attack and mortality would have been infinitely greater. No doubt the writer is quite correct when he draws attention to the absolute ignorance prevailing amongst so-called experts on the nature and sources of "vaccine" lymph. If there are so many inoculable diseases of cows' teats, and it is, further, quite obvious that our supplies of "vaccine"

lymph are derived from a variety of sources, then how are we to tell which is the "life-preserving fluid" of Jenner? Perhaps this will explain why over 90 per cent. of the cases of small-pox have been previously vaccinated. I cannot help thinking that at present we are playing a game very much like the old one of "Shut your eyes and open your mouth," and our eyes seem to be shut very tight.

I am, Sirs, yours truly,

Aug. 13th, 1890. H. H. TAYLOR.

CONSULTATIONS WITH HOMŒOPATHS.

To the Editors of THE LANCET.

SIRS,—Partly because I have been otherwise much occupied, and partly because I thought it possible that someone else might desire to take part in the discussion, I have hitherto refrained from noticing the letters upon consultations with homœopaths which appeared in your issue of the 2nd inst. Permit me now to return to the subject.

With regard to Mr. Shaw, I fail to perceive the purpose of his letter. He confirms my statements in every particular save two, and these two are irrelevant to the issue which I raised. His account differs from mine in saying that the operation after consultation was done with the approval of the consultant, and in saying that the patient took arsenic and not mercury. On the first of these points of difference the consultant himself was my informant: but the question, besides being absolutely unimportant, is one of memory, and need not be suffered to occupy space. No doubt there was, between Mr. Shaw and the consultant, one of those "understandings" which are said always to lead to misunderstandings. With regard to the arsenic, I accept Mr. Shaw's correction. I have never before seen salivation follow its use; but that may be because I have no experience of its administration in infinitesimal doses. Possibly, moreover, in this case the "potency" of the dilution employed may have been increased beyond measure by some accidental shaking during its passage to the ward from the dispensary.

The letter of Dr. Dudgeon appears to me to be highly characteristic of the peculiar conditions of mind and conscience by which adhesion to sham science is rendered possible, or even easy. The first and most essential attribute of the scientific spirit is reverence for and devotion to truth; the first and most essential attribute of the sciolist in medicine, as in any other department of knowledge, is that the discovery or establishment of truth is a matter of indifference to him, or at least is subordinate to his defence of his hypothesis. Now, Dr. Dudgeon tells your readers that I was the author of certain letters which bore the signature "R. B. C." I neither admit nor deny having written the letters in question; but Dr. Dudgeon can have no possible knowledge in the matter. He may have formed a conjecture that I wrote them, and he may be entitled to say that there are grounds which render his conjecture not altogether an improbable one; but further than that he has no right to go. His conviction on the point, in the absence of any evidence, is precisely analogous to his (presumed) conviction that several hundred symptoms, including "disinclination for food after a meal," may be caused by the ingestion of a decillionth of a grain of charcoal; and it is noteworthy that, in the correspondence to which Dr. Dudgeon refers, some letters signed "J. C. B." were in like manner publicly and impudently attributed, either by Dr. Dudgeon himself or by some other homœopath, to a gentleman possessing those initials, but who had taken no part in writing them. But Dr. Dudgeon on this occasion goes much further than to give utterance to his surmises as if they were facts. He attributes to me "the previously expressed opinion" that homœopaths "are either knaves or fools." Now, I have no recollection of having ever expressed any opinion about homœopaths, one way or the other, in any of my acknowledged writings. In one of the letters signed "R. B. C." there was a passage which some homœopath, at the time when it was published, declared to be equivalent, or some such word (I have not the letter for reference) to the opinion which Dr. Dudgeon says I have "expressed"; and "R. B. C.," in an article which appeared soon afterwards in the *National Review* (March, 1888), pointed out that his words were not at all susceptible of the interpretation which had been placed upon them. Dr. Dudgeon's statement that I have "expressed" the opinion which he attributes to me is therefore an absolute falsehood; and the fact of his having given utterance to it permits me to suffer him to fall out of the discussion, and absolves me from the necessity of taking heed of his words or actions from this time forth for evermore.

I should like now, very briefly, to state my actual position with regard to the matter under discussion. There are homœopaths to whom I should pay every personal respect, just as I should pay respect to upright men from whom I differ by the whole sky on a question of politics or of religion. If such a homœopath brought a patient to me, about the nature of whose case he was doubtful, I should not hesitate to examine the patient, and to declare my opinion in the presence of the homœopath. If I were asked to perform an operation, I should have no objection to the presence of a homœopath in the room; but I should stipulate for complete and undivided control of the treatment. The point at which, I think, we ought to draw the line is, at any such consultation, upon the question of what should be done for the relief of a patient, as may imply a willingness to share with a homœopath responsibility for the future management of the case. Just as a Catholic priest would not consult with a Jewish Rabbi concerning the advice to be given to a penitent in a case of conscience, and just as Mr. Balfour would not consult with Mr. Parnell concerning the means to be employed for the pacification of Ireland, so a medical practitioner has no moral right to engage in a consultation which can be no better than a mockery, and which is calculated to deceive the patient and the public. A "consultant," as we all know, sees the patient only occasionally, while the practitioner consulted with is in regular attendance. Can we dare to divide our responsibility with a man whose prescriptions, in any emergency, would be governed by the so-called "principles" of homœopathy? I have nothing to say against homœopaths as possible or actual gentlemen; but the absurdities of the creed which they profess are, in my judgment, such as to deprive them of any right to the professional status which legally belongs to them. The questions for the profession are, therefore, (1) Does a consultation imply readiness to share responsibility for treatment? and (2) Is it right that we should express this willingness in the case of a man who professes to guide his conduct in the sick room by the doctrines of homœopathy? Let me add that, although homœopaths have thought fit to thrust themselves into the discussion in your columns, the question is not one for them, but for us.

I am, Sirs, your obedient servant,

August 12th, 1890. R. BRUDENELL CARTER.

THE EPIDEMIC OF INFLUENZA.

To the Editors of THE LANCET.

SIRS,—It may be of interest to the profession at home who have just come through an epidemic of influenza to learn that even in this part of the world there has been a slight visitation of a disease the symptoms of which seem to me to resemble greatly those which I have seen described in your columns as those of influenza.

About the beginning of May I observed that one of the Customs officers at this station was suffering from what appeared to me to be a severe cold. I paid little attention to it, regarding it as an ordinary cold, which is not uncommon among natives about the commencement of the rainy season. A few days afterwards, however, another Customs officer was attacked, and rather more severely; and then in quick succession, at intervals of from two to three days, followed the Post-office clerk, the bailiff of the Commissioners' Court, the court orderly, the gaoler, and two prisoners. All these officials work in offices in the same building, and come into constant contact with each other, and the manner in which the disease attacked one after the other was most striking. A considerable number of cases occurred among merchants' clerks and natives in the town, and I am informed that a similar epidemic has visited Cape Coast and other places on the Gold Coast. The number of Europeans is very limited, and none of them have suffered from an attack of influenza to my knowledge. All the cases presented the same symptoms, with varying degrees of severity. The onset was sudden in most cases, and accompanied by a feeling of chilliness. There was marked frontal headache, with pains in the lumbar region and loins. Suffusion of the eyes, accom-

panied by pain, was a prominent feature, and "running at the nose" was present in nearly every case. The temperature varied from 100° to 103°. Following the attack there was a certain degree of weakness and nervous prostration, but not to anything like the same extent as appears to have been the case at home. The treatment I adopted was calomel and a saline purge at the commencement of the attack, with quinine subsequently, and antipyrin if the temperature rose. I am doubtful if treatment affected the disease; it seemed to run a natural course of seven to twelve days.

While reading accounts of the cases described during the course of the epidemic at home, I was struck by the resemblance which some of the features bore to attacks of malarial fever. In both there are the muscular pains in the loins and limbs, with marked headache; in both there is the same mode of invasion—suddenly, with chills; and, most marked of all, the same prostration and weariness, out of all proportion to the severity of the attack. In malaria this weakness is evidently due to the enormous destruction of blood-corpuscles caused by the hæmatozoa in the blood (Laveran, Osler, and others), which I have frequently had opportunities of identifying in fever patients on the Gold Coast, and it had occurred to me that a similar destruction of blood might be going on in influenza. I was much pleased, therefore, to see in THE LANCET of Feb. 9th a short note on the Monads in the Blood in Influenza described by Professor Klebs, and to observe that these monads had an intimate connexion with the corpuscles. If, then, this fact of the existence of a monad in influenza be accepted, and if, as in malaria, there is a destructive action on the blood-corpuscle, is it not possible that prolonged exposure to the action of the one may render an individual less susceptible to the action of the other? It is a distinctly ascertained fact that negroes here, although they do suffer from malaria, are less liable to it than Europeans; the attacks are milder, and the subsequent anæmia is less. There is, then, certainly a toleration of the malarial hæmatozoon. May this not extend to influenza, and thus, perhaps, account for the mildness of the type here, and for the smaller degree of nervous prostration to which I have already alluded? I make the suggestion with all diffidence, and shall be interested to learn whether in other malarious countries influenza has been characterised by a mildness of type.

I am, Sirs, your obedient servant,

Accra, Gold Coast, West Africa, June 15th, 1890. W. T. PROUT, M.B., Government Medical Officer.

To the Editors of THE LANCET.

SIRS,—During the last two weeks of July several cases came under my notice exhibiting the same symptoms as those occurring in the last epidemic of influenza, although in a milder form—viz., rigors, headache (chiefly frontal), pain and tenderness of the eyeballs, fever, pain in the limbs, tenderness of the muscles, dyspnœa, lassitude, &c. Each attack lasted only from three to four days—i.e., the acute symptoms,—but well-marked debility continued for a week. All the patients have had influenza before, and six twice previously. The above symptoms undoubtedly point to influenza, and I may say the weather at the time was very hot here.—I am, Sirs, yours faithfully,

CHAS. F. WILLIAMSON, M.R.C.S., &c.

Horley, Surrey, Aug. 9th, 1890.

GUILD OF ST. LUKE.

To the Editors of THE LANCET.

SIRS,—Might I be allowed to bring forward more definitely the object and aim of the Guild of St. Luke? We do not exist simply "to observe rules," but the object of the Guild is the mutual encouragement and support of its members in leading a consistent Christian life and the formation of a bond of union between them. It is true that our members are limited to the members of the Church of England, and that the Guild is worked on definite "Church lines." I fear that even if we were to "enlarge our operations" by departing from our present customs the prospect of embracing within one Society all the members of the medical profession who are Christians would not be realised; for there are a large number who belong neither to the Guild nor to the Medical Christian Association, which includes, I believe, "every variety of Christian belief" except Churchmen. It is not to be expected that medical men will be more united in religious matters than their lay brethren. The Guild holds its anniversary services in St. Paul's Cathedral as near St. Luke's Day as is convenient, at which there are always very large congregations present. The offertories are devoted to a well-recognised medical institution—viz., to the Medical Missionary Fund. This fund is distributed amongst several mission stations towards the support of a medical man in connexion with the mission. Thanking you in anticipation for inserting this letter,

I am, Sirs, yours faithfully,

St. Bartholomew's Hospital. W. KENT HUGHES, Hon. Sec. Guild of St. Luke.

"PASTEUR AND HYDROPHOBIA."

THE following reply to the letter of Mr. Victor Horsley which we published last week has been sent to us, with a request for its insertion. This must close the discussion so far as our space is concerned.

SIR,—We are evidently arguing in a circle. I must, however, correct you. *a.* I did not say in my letter "you ostentatiously labeled your opinions facts" at the Epidemiological Society. I said you did so in your letters in reply in the *British Medical Journal* (*vide* par. 3 in my letter). *b.* Not only was I present at the meeting at the Epidemiological Society, but (to refresh your memory) I spoke. I told the meeting, what it knew, that I was an absolute unbeliever. I said: "I was, however, glad to find we were in agreement on the value of police measures." I carried the President's recollection back to the Congress of 1881, to the paper read by Dr. Van Cappelle, who proved then (what you have since put forward in your original way) that rigorous police measures were sufficient to keep down rabies—a fact known to all students of the disease. I told the meeting, in fact, that you were giving old wine in a new bottle. Dr. Thorne, the president, admitted at the meeting the accuracy of my reference to the Congress. Sir William Moore was next me, and he can confirm the accuracy of this statement—viz., that neither tacitly nor openly did I admit your calculations, or, if you choose, your "facts" on the value of Pasteur's experiments. So far as I am concerned, *causa finita est*, and I certainly shall not take any notice of any further communication from you. You have threatened me with the publication of your letter in the medical press, and have made some general charges which you have not substantiated. I gratify your appeal to the press. Those who read the letters can decide on the merits of the controversy which you initiated.

Yours very faithfully,

Victor Horsley, Esq., F.R.S. THOS. M. DOLAN.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle and Gateshead.

THE recommendation of the committee that a new Home for Incurables be erected, as mentioned in a previous note, was adopted by the Newcastle Council last week. In the new Home provision will be made for twenty cancer cases. Its cost, including furnishings, will be £12,000, but towards this there is an accumulated surplus of £9340. It was suggested by Alderman Newton, a medical member of the Council, that a portion of the surplus should be used for cases of phthisis, and I think that the suggestion was a prudent one, considering the prevalence of consumption in the north-east of England; it was not, however, adopted.

Prevalence of Typhoid Fever in Newcastle and Gateshead.

There has been of late a marked increase in the number of typhoid cases in Newcastle and Gateshead, and in the adjacent villages the milk-supply has, I know, been under suspicion and observation. At Gateshead, last week, an attempt was made in the Town Council to adopt the notification clauses of the Infectious Diseases Act, but the Council threw out the resolution by a considerable majority.

The Newcastle Royal Infirmary and the Use of Stimulants.

At a late meeting of the governors of the Newcastle Royal Infirmary the use of stimulants came up for consideration. A governor brought up a report showing the amount of alcoholic stimulants used in about ninety hospitals and infirmaries in the United Kingdom, from which it appeared that the average cost was 2*s.* 1½*d.*, including the staff. Elgin, he said, was the highest—viz., 7*s.* 10½*d.*, while the London Temperance Hospital was of course *nil*. Newcastle stood at 1*s.* 9*d.*, being slightly below the average, and yet he was not, he said, content, but wanted the consumption brought down to the London Temperance Hospital scale, forgetting that the

Newcastle Infirmary was established for "the care of the sick and lame poor," irrespective of dietetic fads. The same well-meaning governor no doubt took exception to the large quantity of aerated waters used in the infirmary, and thought that steps should be taken to limit this excess.

Death of Mr. G. Noble Clark, L.S.A., L.R.C.P. Edin.

Mr. George Noble Clark, an old Newcastle practitioner, died at his residence in this city on last Tuesday week, August 5th. Mr. Clark was a native of Newcastle, and his memory went back eighty years, when he was a schoolboy at the Grammar School, and Newcastle was a completely walled-in town. He served his time to the late Dr. Frost, and after qualification took the house surgeoncy of the South Shields Dispensary. Soon after this he commenced practice in Newcastle, and distinguished himself in the cholera visitation of 1831–32. He was very successful, and retired about twenty-three years since from active practice. He was, I believe, twice married, and leaves only a daughter as a survivor. His only son, who was a distinguished surgeon in the Royal Navy, died a few years ago. Mr. Clark, who was a Churchman, and a Conservative in politics, had attained his eighty-sixth year. The last few years of his life were clouded by partial blindness, which went on to total loss of sight. He took an active interest in many of the charitable institutions of the town, including the Victoria Blind Asylum and the Northern Counties Deaf and Dumb Asylum, to each of which he left £500.

Death of Mr. William Davison, L.R.C.P. Ed.

Mr. William Davison, long a practitioner in Alnwick and Rothbury, died last week in the former town in his eighty-second year. He was the son of a printer in Alnwick, well known for his connexion with Bewick, the prince of wood engravers. He had travelled much, and a few years since he retired from practice and went to live on his estate in Yorkshire. About eight years ago he returned to Alnwick, and took considerable interest in the sanitary condition of the town; but when asked to act on the Local Board he declined, pointing to his grey hairs, and so reminding his friends that his work was done.

Newcastle-on-Tyne, Aug. 14th.

EDINBURGH.

(FROM OUR OWN CORRESPONDENT.)

The Medical Charities.

A SERIES of elaborate articles have appeared within the past week in the *Scotsman* on the Charities of Edinburgh. These are dealt with in great detail, and compared with similar reports published twenty-five years ago in the same paper. The charities first treated are the medical charities, and some of the results are sufficiently startling to be worth noting here. The sum annually spent in healing the sick in Edinburgh amounts to £45,000, irrespective of the sum paid for the support of the City Hospital for Infectious Diseases. The most startling result of the investigations upon which these articles are based is the number of persons who receive gratuitous medical advice from the city medical charities, the number reaching a total of rather over 103,000 persons, and this in a population a little over 236,000. The articles recommend that additional precautions should be taken to prevent persons availing themselves of such gratuitous help who are quite able to help themselves. At present the principle upon which most of the institutions are conducted is to help whoever presents himself, without asking any questions. And the writer fairly remarks that the temptation to abuse help so readily given is very great, and that it is not altogether wonderful that the numbers are large, especially when, owing to the amount of medical teaching done in Edinburgh, there is always a certain demand for patients. It is almost needless to state that this represents an enormous amount of gratuitous service by the profession.

Popular Lectures on Botany.

Professor Bayley Balfour, of the University, on Saturday delivered the first of four popular lectures on Botany, to an audience of about 200. These lectures are delivered in the Royal Botanic Garden, and are mainly intended for the working classes. Similar lectures were delivered last year, and were sufficiently encouraging to lead to the present course.

Health of the City.

The mortality last week was 81, and the death-rate 16 per 1000. Diseases of the chest accounted for 25 deaths and zymotic diseases for 10. The intimations for the week included 3 cases of typhoid, 1 case of diphtheria, 28 cases of scarlatina, and 19 cases of measles.

Edinburgh, Aug. 12th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Insusceptibility to Vaccination.

THE attention of the Local Government Board here has recently been called to certain statistics laid before the Royal Commission on Vaccination, which included returns of the number of persons insusceptible to the operation throughout the Poor-law unions of Ireland. This number is very large, and the Board surmise that in some instances cases postponed have been entered in error under the heading of "cases insusceptible." Besides, this, however, there is little doubt but that some public vaccinators have certified persons to be insusceptible before taking adequate measures to satisfy themselves that this very rare form of constitutional peculiarity really existed in the cases certified. It cannot be denied that some children, when lymph from points or tubes is used, require the operation to be renewed more than once before success is obtained, but where fresh vaccine lymph is employed—that is, lymph conveyed directly from arm to arm—a failure seldom or never occurs. The Board, in a circular issued by them to dispensary and workhouse medical officers, recommend that before a public vaccinator certifies any person to be insusceptible to vaccination he make three attempts to vaccinate, and on three separate occasions, with fresh liquid lymph.

Green-street Court-house.

The Lord Chief Justice, at the opening of the Commission of Oyer and Terminer for the county and city of Dublin last week, made some observations on the insanitary condition of this court-house, which deserve the attention of the authorities. In addressing the county grand jury, he said that, coming back after the lapse of some time, he saw that wretched court-house in the same condition as he left it. He had withstood for many years its mephitic exhalations, but he now made an appeal on behalf of the common jurors of the city of Dublin. Brought from their business to discharge an unpleasant duty, they came to that court-house, if not at the peril of their lives, at the risk of their health, and they encountered the danger of taking back to their families infection from the poisonous atmosphere within the precincts of the court. Whether the responsibility rested with the city authorities or the county authorities, or with the executive, or whether it was a conjoint responsibility, he would urge that this state of things should at last be regarded. I may add that this conjoint responsibility is divided among the county, the corporation for the city, and the Government. The latter, I believe, have promised one-fourth of the estimated cost of a new court-house, which the corporation consider insufficient, and so the matter remains in abeyance.

Dublin, Aug. 12th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The French Association for the Advancement of Science.

THE nineteenth meeting of this Association was opened at Limoges on the 7th inst. The Section of Medical Science had for its honorary president M. Potain of Paris, and as president, M. Teissier of Lyons.

The President read an important paper on the Antiseptic Treatment of Typhoid Fever. He began by saying that although the cold-bath treatment of this disease had many adherents, and was an undoubtedly efficacious method in general for reducing fever, yet there were many cases in which it was unsuitable, and in which, in consequence, or in spite of it, the pyrexia became more pronounced. Now, whatever virtue there was in the cold immersion treatment of enteric fever, it was to be attributed

chiefly to its antipyretic powers; it had no claim at all to antiseptic qualities—a capital distinction to be established in the treatment of this affection. Cold water applied to the surface of the body had obviously little or no effect on the deeply seated bacillus of Eberth. M. Teissier was therefore of opinion that, *a priori*, intestinal antiseptics practised by means of medication might respond to indications more logical, since one might hope in this way to facilitate the elimination and neutralisation of the products secreted by the bacilli. He had put this theory into practice in fifteen cases, and with the happiest results. The agent which he had recourse to was naphthol. His plan was to administer night and morning forty centigrammes with a little salicylate of bismuth. At the same time, with the double object of assisting in the reduction of the temperature and removing from the intestine with as little delay as possible the septic matters there collecting, he ordered cold water enemata three or four times in the twenty-four hours. With this method of treatment he found that as soon as the urine gave evidence that the system was fairly under the influence of the drug, and therefore in what he deemed an antiseptic state—viz., on an average the fourth day from the exhibition of the first dose,—the temperature grew gradually less, the albumen disappeared, the spleen lost its abnormal size, and the tongue became moist. In a few cases the temperature went up again after a few days, whereupon he gave a third dose of forty centigrammes during the day, with the result of at once bringing the fever under control as in the other cases. This primary reduction in the temperature was followed in all his cases by a period of from six to eight days' marked thermic oscillations, after which convalescence set in. It was a singular fact that during this treatment the usual typhoid aspect was entirely absent in all the cases. Now without doubt this influence on the temperature curve was to be attributed to the naphthol. He had formerly treated such cases with cold enemata and quinine, but he obtained no such results. Naphthol doubtless acted by sterilising in the intestine the bacterian products, these products being soluble, and in all probability possessing fever-producing powers. Moreover, it was a point worthy of attention that whenever he had given naphthol to combat a fever attributable to bacilli secreting soluble products, whether it was in malignant erysipelas, enteric fever, or in puerperal fever, the temperature curve was always modified in an identical manner. In conclusion, M. Teissier expressed his conviction that it was in neutralising the toxic substances secreted by the bacillus of Eberth that naphthol secured the desirable results which he recounted. He would pursue his researches in this direction, not because he did not appreciate the value of the treatment by systematic cold bathing, but because it was possible one might improve upon it by means of the method under consideration—a method, it must not be forgotten, which was directed to the very source of the affection, an affection which in turn was known to be due to an intestinal bacillus secreting products at once soluble, toxic, and pyretic.

Treatment of Tuberculosis with Boracic Acid.

For the past five years, Dr. Gaucher has been studying the action of boracic acid on pulmonary tuberculosis. He has recently made public the results which so far have accrued from his researches. He first of all determined by means of experiments on animals the toxic limits of the acid when administered internally, and he found that this stood at the ratio of about a gramme to a kilogramme of the animal's weight. As to its subsequent elimination from the system, he found that this took place very readily and even rapidly by way of the renal secretion; there was therefore little fear of any accumulation or tardy cumulative action. But, what was an equally important and desirable result, he found that the boracic acid was also eliminated appreciably through the expectoration; the sputum of tubercular patients whom he had subjected to this treatment was found to be very freely charged with the acid. Some of his experiments are not only interesting, but certainly encouraging in their ascertained results. For example, he took two or three rabbits and injected into their lungs through a needle syringe a few drops of a solution of pure tubercular culture. In this way he set up a local tuberculosis which became caseous but not generalised. Some of the animals soon succumbed to pulmonary tuberculosis, and the surviving ones were shortly after destroyed. Well-marked phthisis was found in all post mortem. He next repeated his inoculations on healthy rabbits in precisely the same manner, but he now fed the animals on bran mixed with boracic acid. After a time these also were sacrificed, but, contrary to what he found in his initial experiments, their lungs were quite free from any tubercular lesion, neither was any found elsewhere. It is submitted that, although these experiments on rabbits may not be altogether conclusive as to a like action of boracic acid on human tubercular subjects, they are at least—in the face of the enormous mortality from phthisis and hopelessness of therapeutic methods in general in this disease—worthy of serious attention and more extended trial. As to clinical results, so far as it has been tried, the boracic acid treatment has been found to bring about a notable diminution in the expectoration, which became more fluid and less purulent. Considerable time is, of course, necessary before speaking of remote or final results, but in the cases in which the treatment has been tried, and which have been under observation for a considerable period, it may be said that in general they improved in every way, while the tubercular trouble in the lung appeared to be at a standstill. The dose administered in these cases was one gramme in divided doses in the twenty-four hours. This, on the weight theory, must be considered insufficient. Taking the average weight of a patient to be sixty kilogrammes, and putting the limit of dose at twenty centigrammes for every three kilos, four grammes of the acid should be given per day, the dose being, of course, graduated up to this amount. Boracic acid will be found as a rule to agree well with the stomach, and is easily taken; it is not caustic, has no disagreeable taste, and in some cases was found even to check the diarrhœa when this existed.

Plumbism and Alcoholism.

At a recent meeting of the Academy of Sciences M. Charcot read a note on some experiments in plumbism carried out by MM. Combermate and François. They caused from one to five centigrammes of carbonate of lead to be consumed daily by animals. At the end of about a month the nervous symptoms of saturnine poisoning made their appearance—such as epileptic fits, delirium, &c.—just as they are observed in man. This was, of course, not new; but the interesting point was that in certain of the animals experimented upon the administration of large doses of alcohol was found to hasten in a remarkable manner the advent of the nervous symptoms. The same thing was noticed when others of the animals were subjected to any abrupt emotional shock, such as fear. These facts were worthy of note, for in man a similar precocity of the nervous phenomena of plumbism was observed whenever those already suffering from lead poisoning were subjected to a moral shock or became addicted to alcohol.

Paris, Aug. 12th.

Obituary.

JOHN ARTHUR WEST, L.R.C.P., M.R.C.S.

IT was recently our painful duty to record the early death, at the age of thirty-two, of this young practitioner, which occurred at Broadstairs on the 29th ult. Although never very strong, Mr. West was always active and energetic, and he won for himself a large circle of friends both during his career as a student and in after life. In the course of his medical education at King's College he gained many distinctions, amongst others the entrance Warneford Scholarship, the Junior Scholarship, and Sir Joseph Lister's prize for clinical surgery. After working under the same surgeon as dresser and clerk, he eventually became his house surgeon. On leaving King's College Hospital he was in turn clinical assistant and house surgeon and registrar at the North Eastern Hospital for Children; but signs of consolidation of the lungs interrupted his work, and under the advice of Dr. Sansom he took a trip to New Zealand. He married on his return, and entered into partnership with Mr. Blackstone, of Primrose-hill. Carrying into private practice the zeal and devotion which had hitherto been characteristic, he speedily gained the confidence and affection of his patients. In the early part of the year he was much prostrated by an attack of influenza, which left a slight but troublesome cough. Early in July, however, when on his holiday at Broadstairs, he was suddenly seized with hæmoptysis, which

was the prelude of very rapid tuberculosis. During his last illness he was attended by Mr. Raven of Broadstairs and by Dr. Tirard. His early death has called forth many expressions of sorrow. One patient writes: "His death will be a great loss to us all who had the privilege of knowing him, and also to the world at large, for he seemed to have a bright future before him."

JAMES W. T. SMITH, M.D.

BELFAST and the entire province of Ulster, where Dr. James W. T. Smith was so widely and so well known as consulting physician, has received a serious shock by the announcement of his death, which occurred at his residence, Wellington-place, Belfast, on July 11th, at the age of about sixty years. Born and brought up in Belfast, Dr. Smith gained his medical training in Dublin, where in 1848 he obtained the licence of the College of Surgeons. He subsequently became, in 1853, a graduate of the late Queen's University, and, by his singularly successful career in his native city, soon showed that he was born to be a physician. His first appointment was that of a dispensary doctor, and here, as he often stated, he gained a very large and valuable experience. He soon afterwards was appointed as physician to the Royal Hospital, from which, on his retirement two years ago, he was elected to the consulting staff. Here, by his careful and thorough teaching, and by his accuracy in diagnosis, he gained the complete confidence of the students of the Belfast Medical School—a circumstance of very great importance in his own career as a consultant, and to the public at large, with whom he rapidly rose in high estimation. For many years he was also physician to the Lying-in Hospital, and afterwards consultant; the latter office he also held in the Belfast Hospital for Sick Children. A fainting fit in Armagh on the Thursday evening, while engaged in a consultation, which subsequently developed into an attack of left hemiplegia, was followed by congestion of the lungs on Sunday, and the illness terminated fatally on Monday evening. At no time was his mind in the slightest degree affected, and up to a short time before his death he was able to speak in his usual clear and decisive manner to the members of his family who stood around his dying bed. From the first seizure Dr. Smith felt he would not recover, and stated this to his son, Dr. Strafford Smith, and to his old friend Mr. McCleery, who attended him to the last. Unfortunately, his diagnosis of his own case was characterised by his usual accuracy. It is impossible to estimate the loss that Belfast and the north of Ireland have sustained in the death of Dr. James Smith. For several years he was one of the most prominent of the medical men in Ireland. Thoroughly self-made (of which he was proud) and self-reliant, he had the complete confidence of the public. His province was at the bedside, where, by his careful examination, correct opinion, and attention to details, he gained absolute hold of his patients. He had an immense general and obstetric practice, and in the past ten years his consulting work extended to every county in Ulster. No medical man was better known and more respected and beloved in the north of Ireland than Dr. James Smith. He left strict instructions with his surviving family (two sons and five daughters) that his funeral was to be private.

Dr. Smith was a widower, his wife, who was a member of a family long connected with Belfast, and who was held in deserved esteem, having died several years ago.

WILLIAM DE LA MOTTE, L.S.A.

MANY relatives and many friends will have heard with deep regret the tragic end of William De la Motte; he was the son of the late Henry De la Motte, a surgeon, of Swanage, Dorsetshire, where his brother, George Cotes De la Motte, is still practising. His grandfather, Peter De la Motte, Esq., who married a daughter of the Rev. Digby Cotes, of Abbey Dore, in the county of Hereford, and resided at Weymouth, was a direct descendant from Philip De la Motte of Tournay, who came to this country at the time of the Revocation of the Edict of Nantes, and was appointed Ministre de la Parole de Dieu of the French Protestant Church of Southampton, where a number of the De la Mottes are buried. Many of the De la Mottes have done good service. His uncle, Peter De la Motte, was a Lieutenant-General in the Indian Army, and was made a C.B. in 1838. His brother, who gave evidence at the inquest, is founder of the Huguenot Society of London. William De la Motte was educated privately, and entered the London Hospital for his medical education. He lately took the double qualification L.S.A., and was due for his final at the Royal College of Physicians, London. At the time of his death he was assisting Dr. Hawkins in the Commercial-road, who highly valued and appreciated him as a conscientious, kind, and thorough gentleman.

Medical News.

UNIVERSITY OF LONDON.—The following candidates passed the Intermediate Examination in Medicine in July last:—

Entire Examination.—First Division: Hamilton Ashley Ballance, University College; Blackwell Charles, St. Bartholomew's Hospital; John Howard Fletcher, Owens College; Chas. Arthur Fuller, St. Mary's Hospital; Francis Octavius Grant, St. Thomas's Hospital; John Howell Griffiths, St. Bartholomew's Hospital; Fred. Newman Grinling, University College; Robert Cullum Gully, St. Bartholomew's Hospital; Edwd. Marrack Hainworth, St. Thomas's Hospital; John Owen Harvey, St. Bartholomew's Hospital; Benjamin Grant Heather, St. Thomas's Hospital; Arthur James Martin, Queen's College, Birmingham; John Leyden Morton, St. Mary's Hospital; Julius Mostertz, University College; Alexander Paine, St. Mary's Hospital; Charles Herbert Perram, St. Bartholomew's Hospital; Edwin Smith, St. Thomas's Hospital; Wm. Turner, King's College; Chas. Fredk. Myers Ward, Queen's College, Birmingham; James Smith Whitaker, Owens College and Royal Infirmary, Manchester.—*Second Division:* Gabrielle Ruth S. Breeze, London School of Medicine for Women; Francis Jordan Coleman, Guy's Hospital; Ralph Henry Crowley, St. Bartholomew's Hospital; Edmund S. Dukes, Guy's Hospital; Chas. Joseph Harrison and Arthur Douglas Heath, University College; Thomas Wm. Hicks, St. Thomas's Hospital; Harold Julius Jäger, King's College; Wm. John Johnson, Guy's Hospital; John Jones and Alfred Goodman Levy, University College; Stephen Nesfield, Owens and University Colleges; Harold Everett Pace, London Hospital; Wm. Redpath, St. Thomas's Hospital; John Lorimer Sawers, University College; Geo. Samuel S. Smith, St. Thomas's Hospital; Wilfred Newell Soden, St. Bartholomew's Hospital; Whitley Stokes, St. Thomas's Hospital; Alfred Charles Ta'Bois, St. Bartholomew's Hospital; William Martyn Thomas, Charing-cross Hospital; Thomas Swale Vincent, Queen's College, Birmingham; Sydney Russell Wells, B.Sc., St. George's Hospital.

Excluding Physiology.—First Division: Lullum Wood Bathurst, St. Bartholomew's Hospital; William Thomas, Yorkshire College.—*Second Division:* Robt. Turle Bakewell, University College; Alfred Herbert Card, Frederick Hazell, and William Henry Jewell, Guy's Hospital; Alfred George Jones, Middlesex Hospital; Geo. Martyn, King's College; Wm. Chas. Cunningham Park, Guy's Hospital; John Dunnell Rawlings, St. Bartholomew's Hospital; Reginald Smith, Owens College.

Physiology only.—First Division: Wm. Tillinghast Atwool, St. Mary's Hospital; Henry O'N. Fraser-Luckie, Henry Thomas Parker, and Rowland N. U. Pickering, St. Bartholomew's Hospital; Clement Michael Rogerson, Yorkshire College; Richard John Stephens, King's College; Josiah Percival Tildesley, Queen's College, Birmingham; Henry Eugene Tracey, St. Bartholomew's Hospital; Albert Edward Tebb, Guy's Hospital.—*Second Division:* Atwood Thorne, St. Mary's Hospital.

The following candidates passed the examination for Honours:

Anatomy.—First Class: Thomas Carwardine (exhibition and gold medal), Middlesex Hospital; Ann Frances Piercy (gold medal), London School of Medicine for Women.—*Second Class:* Martin Randall, B.A., University College; Leonard Rogers, St. Mary's Hospital; Frank William Wesley, University College; Thomas Llewelyn James, Yorkshire College.—*Third Class:* Lillie Mabel Agnes Jones, London School of Medicine for Women; Charles Satchell Pantin, Guy's Hospital; Charles George Spencer, University College.

Physiology and Histology.—First Class: Ann Frances Piercy, London School of Medicine for Women; Edmond Wallace Selby and Charles George Spencer, University College.—*Second Class:* Thomas Carwardine, Middlesex Hospital; Leonard Rogers, St. Mary's Hospital; Frank William Wesley, University College; Charles Samson Jaffé, St. Thomas's Hospital; Maud Mary Chadburn, London School of Medicine for Women.—*Third Class:* Clayton Arbuthnot Lane, St. Mary's Hospital; Charles Satchell Pantin, Guy's Hospital; Christopher Thackray Parsons, St. Mary's Hospital; Arthur John Sharp, Guy's Hospital; Wilfrid Edgecombe, University College, Liverpool; William Freer Lucas, Middlesex Hospital; Joseph Leonard Iredale, Leeds School of Medicine.

Organic Chemistry.—First Class: Fredk. Gowland Hopkins (exhibition and gold medal), Guy's Hospital.—*Second Class:* William Bamford Winston, St. Thomas's Hospital.

Materia Medica and Pharmaceutical Chemistry.—First Class: Ann Frances Piercy (exhibition and gold medal), London School of Medicine for Women; Edmond Wallace Selby, Geo. Arbour Stephens, B.Sc., and Martin Randall, University College; John Charles Baker, B.A., St. Bartholomew's Hospital; Wilfrid Edgecombe, University College, Liverpool.—*Second Class:* Arthur Bassett Jones, University College; Arthur John Sharp, Guy's Hospital; Leonard Rogers and Christopher Thackray Parsons, St. Mary's Hospital.—*Third Class:* Charles Samson Jaffé and William Bamford Winston, St. Thomas's Hospital; Frederick Gowland Hopkins, Guy's Hospital.

BRITISH DENTAL ASSOCIATION. — The annual meeting of the Association will be held at Exeter on the 21st inst. and following two days.

MEDICAL MAGISTRATE.—Mr. Thomas Castley Bailey, L.R.C.P. Edin., M.R.C.S., has been placed on the Commission of the Peace for the borough of Crewe.

THE SEWERAGE OF HAYES, MIDDLESEX.—A plan for the drainage of this district has been selected by the Uxbridge Rural Sanitary Authority at an estimated cost of £10,500. The sewage will be chemically treated.

PRESENTATION TO A LEITH DOCTOR.—On Saturday afternoon, the 9th inst., Dr. Simpson, of Leith, was presented with a Lansdowne *épergne* by the four local courts of the Ancient Order of Foresters, as a mark of esteem and as an expression of their appreciation of his valuable services to the Order during a period of twenty-two years.

GERMAN STATE AID FOR POOR CHILDREN.—Thousands of poor children will, in accordance with the direct orders of the Emperor William, enjoy for the first time in their lives the benefit of a change to the seaside. The children of all the workmen employed in the Government factories have been examined by medical men, and such as require sea breezes will be sent for a holiday at the expense of the Government.

INGHAM INFIRMARY, SOUTH SHIELDS.—The seventeenth annual report of the committee of the Ingham Infirmary, to be presented to the governors at their meeting on the 19th inst., states that they are able to record that, notwithstanding the unexpected and extraordinary outlay, caused principally by the insanitary condition of the institution, the balance-sheet shows a credit balance upon the year's working of £96 9*s.* 7*d.*

THE ST. JOHN AMBULANCE ASSOCIATION.—The Duchess of Beaufort distributed the certificates to the members of the Sherston Branch on Saturday, August 2nd. The Vicar (Rev. E. F. T. Ribbans) introduced the meeting, and Dr. Harrison spoke on behalf of the Society. The meeting terminated with a vote of thanks to Dr. Harrison for the trouble he had taken and the able manner in which he had instructed those in the class; and also to her Grace, who expressed her thanks and pleasure at being present at a meeting which was quite in harmony with her own feelings.

BEQUESTS.—Mr. J. J. Cunningham, late of Kingstown, bequeathed £500 to the Mater Misericordiæ Hospital; £500 to St. Vincent's Hospital; £500 to the Hospice for the Dying; £500 to St. Michael's Hospital, Kingstown; £1000 to Jervis-street Hospital; £200 to the National Lying in Hospital; £100 to the Hospital for Incurables; £500 to the Blind Asylum, Merrion; £500 to St. Joseph's Hospital for Children; and £200 to St. Vincent's Hospital Convalescent Home.—The late Mrs. Charlotte Mills of Newbury bequeathed £100 to the Newbury District Hospital.—Mr. Henry Branston of Newark has given £1000 to the Newark Hospital and Dispensary.—The late Mr. Joseph Orrell of Atherton bequeathed £500 to the Bolton Infirmary.—Mr. Thomas Jeans, late of Bristol, bequeathed £25 each to the Royal Hospital for Incurables, the East London Hospital, the Eastern Dispensary, Bath; and the Bath Mineral Waters Hospital.—Mr. Wm. Hodson, late of Wolverhampton, left by his will £200 to the Wolverhampton Eye Infirmary and £100 to the Hospital for Women, Wolverhampton.—Lady Diana Belcher bequeathed £300 to the Seamen's Hospital Society.—Miss Chippindale of Tunbridge Wells has sent a donation of £100 to the Royal Hospital for Diseases of the Chest, City-road.—By the will of the late Mr. J. E. Flindt of Upper Tulse Hill £20 each (free of legacy duty) is left to the Royal Hospital for Incurables, the Hospital for Consumption (Brompton), the London Hospital, the Metropolitan Free Hospital, and the City of London Truss Society.—The sum of £3060 has been left by the late Mr. Thomas Richard Walker of Doncaster to the Scholfield Convalescent Fund.—The late Mr. C. Goding of Knightsbridge bequeathed £500 each to the St. George's, Middlesex, Cancer, and General Lying-in Hospitals.—Miss Elizabeth Piper, late of Kingston, Wilts, left by her will £500 to the Savernake Cottage Hospital.—Mrs. Symes, late of Gorphwysfa, bequeathed the residue of her personalty (upwards of £155,000) to various charitable institutions, amongst which are the Gloucester Infirmary, the Carnarvonshire Infirmary, and the Children's Hospital at Kingsholm, Gloucestershire.

COÖPERATIVE PROVINCIAL SANITATION.—The Shipley Local Board has decided to join the Windhill Local Board in an application to the Central Authority for a provisional order to form a local sewerage board for the disposal of the sewage from Shipley and Windhill.

INQUESTS AT TAVERNS.—The incongruity and disadvantages of holding these inquiries at a tavern have been frequently the subject of public animadversion, and emphasised both by coroner and jury. A coroner's court is, at present, only provided by the voluntary action of the local authority. No statutory compulsory powers, we believe, exist to enforce such a provision. Mr. Braxton Hicks, the coroner, on holding an inquest a few days since at the Star and Garter, Battersea, again severely complained (in which the jury concurred) that there was no coroner's court for such an inquiry.

HOSPITAL SUNDAY AND SATURDAY IN LIVERPOOL.—The collections in the churches and chapels last January on behalf of the Liverpool medical charities were so liberal, and the efforts of the working men to make Liverpool's Hospital Saturday a success were so hearty, that the committee were enabled to divide the handsome total of £10,600 among the local hospitals and dispensaries, to whose managers the various sums awarded will be truly welcome. The sum awarded is only less by £200 than that distributed in 1874, which was the largest amount apportioned since the first Hospital Sunday in 1871.

COTTAGE HOSPITALS.—The formal opening of the Stephen Cottage Hospital, Dufftown, was performed by the Duke of Fife on the 5th inst. His Grace presented the site, and towards the erection and endowment of the hospital Sir George Stephen of Montreal (a native of Dufftown) gave £5000, with the stipulation that of this sum £2000 should be appropriated for the building and furnishing, and £3000 invested as a permanent endowment.—*Wirksworth:* During the past year thirty-nine cases were admitted into this hospital, and the average cost of each patient was £5 10*s.* 4*d.* The financial statement showed a deficiency of £37 15*s.* 9*d.* Measures have been adopted with a view to improve the income.—*Brixton:* Efforts are being made to erect a cottage hospital in Brixton, a want in this extensive district which is much felt. The committee of the Brixton Dispensary, in rebuilding its institution, has provided plans and accommodation in connexion with it for the establishment of such a hospital, on condition that £2000 is raised for the purpose.

HOSPITAL SUNDAY AND SATURDAY PROVINCIAL COLLECTIONS.—The recent annual street collection in Reading, on behalf of the funds of the Royal Berkshire Hospital, amounted to £344 18*s.* The Hoyland Common (Barnsley Division) Hospital Sunday collection last month, in aid of the Beckett's Hospital, Barnsley, realised £70. The recent Belgrave Hospital demonstration in Pimlico and the surrounding districts, in aid of the Belgrave Hospital for Sick Children, produced £169 1*s.* 7*d.*, an increase of £38 4*s.* 6*d.* on the last year's collection. The Elswick Works governors of the Newcastle Royal Infirmary have made a grant of £50 to the Fleming Memorial Hospital out of the funds contributed by the workmen to the medical charities. The last Hull Hospital Sunday collections (the accounts of which have recently been made up) show that the total amount received was £639, an increase of about £38 on the previous year. This sum has been divided as follows: Hull Royal Infirmary, £480; the Dispensary, £62; the Victoria Children's Hospital, £51; and the Homœopathic Dispensary, £17.

MEDICAL NOTES IN PARLIAMENT.

Education of Blind and Deaf-mute Children (Scotland) Bill.

IN the House of Lords on the 12th inst. the Commons' amendments to this Bill were considered and agreed to.

Public Health Acts Amendment Bill.

This Bill, with amendments, passed through committee.

The Army Estimates.

The House of Commons on Saturday afternoon was engaged in considering the Army Estimates.—Dr. Farquharson directed the attention of the Secretary of State for War to some new facts in connexion with the medical establishments. He pointed out that the army doctors, although a scattered body, had behind them the sympathy of the

whole medical profession. In the event of no notice being taken of their grievances the medical schools had the whip-hand of the Government, because they could recommend their students not to accept appointments in the Army Medical Department. He referred to the year 1877 when no candidates could be found. Their grievances were worthy of consideration. The recommendations of the committee had been rejected on the ground of expense, and in deference to the wishes of the military authorities. The period of foreign service was now six years instead of five, and many private appointments had been handed over to half-pay men. He referred further to the suggestion for three months' leave for the purposes of study. He denied that medical men were craving after titles for the title's sake. What the doctor did want was a title easily understood, and he thought for that purpose distinct rank was necessary. He thought the right hon. gentleman had now an opportunity of satisfying the department once for all.—Mr. Macneil claimed for the officers that they should have equal rights and privileges with non-combatant officers. He maintained that the army surgeons should be on the same level as the officers of the Royal Military Engineers. He was sorry to see that at the present moment medical men were the subjects of various social slights and indignities. The staff were in as great danger of active service as the combatant officers, and they had shown on the battle-field some splendid instances of courage. The question ought not to be one of pounds, shillings, and pence; it involved much higher considerations.—Mr. Bartley said it was the unanimous feeling of the Committee last year that not only should these officers be well paid, but that the country should secure the services of the best men available. He deprecated the craving for titles manifested by the younger members of the Army Medical Department. He strongly objected to the system, which was merely using the service as a training-ground for young doctors. He believed that many of the grievances alleged were more sentimental than real.—Mr. Stanhope referred to the deputation he had received only a few days ago, consisting of some of the most eminent members of the medical profession, on this subject. He had nothing to complain of in the tone of the criticism adopted, except in one case, and that was when an hon. member made the remark that the medical profession had the whip-hand of the Government in this matter. Such an argument would have no effect upon him. He would state to the House that certain recommendations had been made by Lord Camperdown's Committee, which involved an increase of expenditure of £100,000 a year. At the present time the army officers retired, after twenty years' service, with £365 a year, which he considered an exceedingly liberal regulation. He could not mistake the wishes of the deputation on the question of titles. They wished the army doctors to be called generals, colonels, majors, and captains. For his part, he thought the title of doctor was easily understood, whereas the titles mentioned as applied to medical men would certainly not be. The opinions of the deputation would, however, be considered with the respect due to them, but he was also bound to consider and consult the feelings of the service on the matter, and he was not prepared to give any decision on the matter until he had done so.

The Supply of Drugs to the Army.

Mr. A. O'Connor directed attention to this question, and Mr. Stanhope said he was willing to undertake an investigation before the next session, in order to see whether drugs might be obtained elsewhere.

Ether Drinking.

In the House of Commons, on Monday, the 11th inst., Mr. Macartney asked the Chief Secretary to the Lord-Lieutenant of Ireland whether his attention had been called to the evidence given at an inquest in Ireland regarding ether drinking.—Mr. A. J. Balfour said he was informed that at the inquest mentioned the witnesses and coroner expressed themselves in the manner indicated in the question with regard to the practice of ether drinking. The constabulary authorities were obtaining details as to the traffic in ether throughout the county.

Miners' Disease.

In answer to Mr. Conybeare, Mr. Matthews said: The inspector having reported to me that the causes which led to the high death-rate have been almost entirely eliminated, and that the next report of the Registrar-General will probably show a decreased mortality among Cornish miners, I have not considered it necessary to anticipate that report by endeavouring to obtain statistics as to the prevalence of miners' disease in Cornwall.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on August 12th, 1890.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	283	39	..	30	4	356	442
North-Western Hospital	262	31	..	5	..	298	415
Western ,,	126	9	..	5	3	143	262
South-Western ,,	157	..	..	..	1	158	340
South-Eastern ,,	215*	15	4	25	3	262	462
Northern ,,	390	23	..	..	..	413	480
Totals	1433	117	4	65	11	1630	2401

* 1 infant with mother.

BOOKS ETC. RECEIVED.

BLACK, ADAM & CHARLES, Edinburgh.
The Collected Writings of Thomas De Quincey. By D. Masson. New and Enlarged Edition. Vol. X.: Literary—Theory—and Criticism. 1890. pp. 455.

CHURCHILL, J. & A., New Burlington-street, London.
The Organic Analysis of Potable Waters. By J. A. Blair, M.B., C.M. Edin., L.R.C.P. Lond. 1890. pp. 118.
A Dictionary of Practical Medicine. By various Writers. Edited by James K. Fowler, M.A., M.D. 1890. pp. 942.

DAVIES, F. A., Philadelphia and London.
Annual of the Universal Medical Sciences. A Yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by Charles E. Sajous, M.D., and 70 Associate Editors. Illustrated. Vols. I. to V. 1890.

EVERETT & SON, Salisbury-square, Fleet-street, London.
Swanage (Isle of Purbeck): its History, Resources as an invigorating Health Resort, Botany, and Geology. Edited by John Braye. 1890. pp. 119. Price 1s.

LECROSNIER ET BABÉ, Paris.
Hystéropexie Abdominale Antérieure et Opérations sus Pubiennes dans les Rétrodéviations de l'Utérus. Par Marcel Baudouin. Avec 22 Figures dans le Texte. 1890. pp. 414.

LEWIS, H. K., Gower-street, London.
Diseases of the Nose and its Accessory Cavities. By W. Spencer Watson, F.R.C.S., B.M. Lond. With Special Sections by Dr. R. Liveing, Mr. Wm. Adams, and Mr. A. E. Cumberbatch. Second Edition, with Engravings and Plates. 1890. pp. 318.
On the Treatment of Diseases of the Nervous System. By C. W. Suckling, M.D. Lond., M.R.C.P. 1890. pp. 278.

PUBLISHED BY THE AMERICAN PUBLIC HEALTH ASSOCIATION, Rochester, New York.
Practical Sanitary and Economic Cooking. Adapted to Persons of Moderate and Small Means. By Mrs. Mary H. Abel. The Lomb Prize Essay. 1890. pp. 190.

THE RELIGIOUS TRACT SOCIETY, 56, Paternoster-row, London, E.C.
Health at Home Tracts. 1—12. By A. Schofield, M.D., M.R.C.S. 1890. Price 1s. 6d.

WARNER, W. R., & Co., Philadelphia, and F. NEWBERY & SONS, King Edward-street, London, E.C.
William R. Warner's Therapeutic Handy Reference Book for Physicians. Third Edition. 1890.

YOUNG, J. PENTLAND, Edinburgh and London.
Hypnotism, or Psycho-Therapeutics. By R. W. Felkin, M.D., F.R.S.E. 1890. pp. 84.

Du Vertige Cardio-vasculaire ou Vertige des Artério-scléreux; par le Professeur J. Grasset—Leçons recueillies et publiées par le Dr. G. Rauzier (C. Coulet, Montpellier, et G. Masson, Paris, 1890).—La Neurasthénie (Épuisement Nerveux); par L. Bouveret (J. B. Baillière et Fils, Paris, 1890).—Hernies Internes Rétro-peritonéales; par T. Jonnesco (G. Steinheil, Paris, 1890).—The Veterinarian: a Monthly Journal of Veterinary Science, August, 1890; edited by Professors Simonds, Brown, Axe, and McCall (Longmans, Green & Co., London); price 1s. 6d.—University College, Bristol: Calendar for the Session 1890-91 (J. W. Arrowsmith, Bristol, 1890); price 1s.—The British Journal of Dermatology; published monthly; edited by Malcolm Morris, London, and H. G. Brooke, Manchester; August, 1890 (H. K. Lewis, London); price 1s.—Archives de Tocologie des Maladies des Femmes et des Enfants Nouveau-nés; Juillet, 1890 (Lecrosnier et Babé, Paris, 1890).—Observations on the Secretion of Bile in a case of Biliary Fistula; by A. W. Mayo Robson, F.R.C.S. (Harrison & Sons, London, 1890).—Physiological Quantities or Constants; arranged by V. H. W. Wingrave, M.C.S. (Henry Kimpton, London, 1890); price 1s.—The Heating and Lighting of London by Pipe Lines; an open Letter to W. Wren, Esq., L.C.C., on the Abolition of London Fog; by T. H. Williams, F.C.S., L.C.C. (T. Scott & Co., Warwick-court, London, 1890).—Sunburn on the Alps; by R. L. Bowles, M.D., F.R.C.P. (E. Stanford, Charing-cross, London, 1890); price 1s.—Pioneer Surgery in Kentucky: a Sketch; by D. W. Yandell, M.D. (John P. Morton and Co., Louisville, 1890).—The Length of Life of Total Abstainers and Moderate Drinkers compared, as taken from the Records of Insurance Companies and Benefit Societies; by Chas. R. Drysdale, M.D.; second edition (George Standring, Finsbury-street, London, 1890); price 2d.—Magazines for August: Good Words, Sunday at Home, Leisure Hour, Sunday Magazine (Isbister), Boy's Own Paper, Girl's Own Paper (Religious Tract Society), Scribner's, Lippincott's.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, JAS. K., M.D., L.R.C.S.Edin., has been appointed Surgeon to the Arbroath Infirmary.

ANDREW, JAS. L., M.D. St. And., M.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer for the Quickmere Union District.

ARMSTRONG, WM. C., M.D., L.R.C.S.Edin., has been appointed Medical Officer for the Coalisland District of the Dunganon Union, vice Leatham, resigned.

BLACKMAN, J. G., M.D., M.R.C.S., has been reappointed Medical Officer of Health to the Portsea Island Rural Sanitary Authority.

BLAXALL, FRANK R., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Senior Assistant Medical Superintendent to the Infirmary of the Parish of St. Pancras.

BURROWS, H. C., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Newark Rural District.

CLARK, GEO. A., L.R.C.P., L.R.C.S. Ed., has been appointed Assistant Medical Officer to the Town's Hospital and City Parochial Asylum, Glasgow.

CLARK, W. T. M., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer of Health for the Twickenham Urban Sanitary District of the Brentford Union.

CLARKE, WM. J., M.R.C.S., has been appointed Medical Officer for the Second District of the Newbury Union.

COOKE, WM. C., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the South Bersted District of the Westhampnett Union, vice Osborn, resigned.

DALTON, ERNEST E., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Rural Sanitary District of the Cerne Union, vice MacEnery, resigned.

DAVIES, D. LL., M.B., L.R.C.S., L.R.C.P., has been appointed Medical Officer and Public Vaccinator to the First Central District of the Neath Union, Glamorganshire, vice J. Russell, resigned.

DEANE, C. M., M.D. Edin., M.R.C.S., has been appointed Medical Officer for the Shire of South Barwon, Victoria.

DEWAR, JAS. A., M.D., L.R.C.S. Edin., has been reappointed Honorary Consulting Surgeon to the Arbroath Infirmary.

GILMOUR, ANDREW, L.R.C.P. Edin., has been reappointed Medical Officer of Linlithgow.

GREIG, D. M., M.B., C.M., L.R.C.S. Edin., has been appointed Medical Officer to the Industrial Schools, Dundee, vice D. Greig, deceased.

HARRIS, ARTHUR W., M.R.C.S., has been appointed Medical Officer of Health for the Southampton Urban Sanitary District of the Southampton Union, vice Osborn, resigned.

JOYCE, J. F., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of that part of the shire lying east of Kooyong-road, Victoria.

LAING, DAVID, M.D. Edin., has been appointed Surgeon to the Arbroath Infirmary.

MORISON, JOHN, M.D. Edin., D.P.H.Camb., has been appointed Medical Officer of Health and Public Analyst to the City of St. Albans, vice Dr. W. R. Smith, resigned.

MORRIS, FRED. H., M.D. St. And., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Wellingborough Union.

MUNRO, ROBT. H., M.B., C.M.Edin., has been appointed Surgeon to the Arbroath Infirmary.

PERMEWAN, ARTHUR E., M.D. Lond., M.R.C.S., has been reappointed Medical Officer and Public Vaccinator for the Redruth District of the Redruth Union.

RICHMOND, JAMES, M.B. Oxon., M.R.C.S., has been appointed Surgeon to the Standedge New Tunnel Works, London and North-Western Railway Company, Marsden.

RUSSELL, JOHN, M.D. Aberd., has been appointed Surgeon to the Arbroath Infirmary.

STEVENSON, R. D., M.B., C.M. Glasg., has been appointed Medical Officer of the Shire of Mount Franklin, Victoria.

WALLACE, Q. MACADAM, M.B., C.M. Edin., has been appointed Honorary Surgeon to the Birkenhead Eye and Ear Hospital.

WANNAN, GEO. W., L.R.C.S. Edin., has been reappointed Honorary Consulting Surgeon to the Arbroath Infirmary.

WILDING, WALTER F. W., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Surgeon to the South Dispensary, Liverpool, vice Sydney J. Palmer, M.B., resigned.

WILSON, JAMES, M.D. Aberd., L.R.C.S. Edin., has been reappointed Parochial Medical Officer for Meldrum.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BRITISH HOSPITAL, Buenos Ayres, S. America.—Resident Medical Officer. Stipend £200 for the first year, £225 for the second year, and £250 for the third year, together with an annual allowance of £20 for wine. Furnished apartments, board, and washing are provided on the premises. (Apply to Messrs. Burgoyne, Burbidges, Cyriax, and Farries, 12 and 16, Coleman-street, London, E.C.)

CHILDREN'S HOSPITAL AND DISPENSARY, Manchester.—Medical Officer. Salary £180 per annum. (Apply to the Chairman of the Medical Board, Children's Dispensary, Gartside-street, Manchester.)

COUNTY LUNATIC ASYLUM, Burntwood, near Lichfield.—Assistant Medical Officer. Salary to commence at £120 per annum, with board, lodging, washing, and attendance.

DEWSBURY AND DISTRICT GENERAL INFIRMARY.—House Surgeon. Salary to commence at £80 per annum, and board provided.

GENERAL HOSPITAL, Birmingham.—Resident Surgical Officer. Salary £130 per annum, with residence, board, and washing.

HORSHAM UNION.—District Medical Officer and Public Vaccinator for the No. 4 District of the Union. Salary at the rate of £36 15s. per annum, exclusive of the extra fees for surgical operations and midwifery cases prescribed by the Local Government Board's General Orders, and vaccination fees.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident Medical Officer. Salary £200 per annum, with board and residence. Also an Assistant Medical Officer (qualified).

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, London.—Clinical Assistants in both Out- and In-patient Departments.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House Surgeon. Salary £50 per annum, with board, lodging, and washing. (Apply to Dr. Martin, 76, Brunswick-street, Sheffield.)

LIVERPOOL STANLEY HOSPITAL.—Honorary Surgeon.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT, Hardman-street, Deansgate, Manchester, and Bowdon, Cheshire.—Honorary Assistant Physician.

MANCHESTER ROYAL INFIRMARY.—Resident Surgical Officer for twelve months Salary £150 per annum, with board and residence.

PENRITH UNION.—Medical Officer for the Workhouse of the Penrith Union and for the First Division of the Penrith District in the Union. Salary £38 per annum, with extra fees for surgical operations, midwifery, and vaccination cases. (Apply to the Clerk, Penrith.)

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMAN'S INFIRMARY.—Resident Medical Officer. Salary £120 per year (£10 allowed for substitute during annual holiday), with furnished apartments, gas, firing, and attendance.

ROYAL ISLE OF WIGHT INFIRMARY, Ryde.—House Surgeon and Secretary. Salary £60 per annum, with board, lodging, &c.

SURREY DISPENSARY, Great Dover-street, S.E.—Resident House Surgeon. Salary £120 per annum; furnished apartments, coal, gas, and attendance provided.

TAUNTON AND SOMERSET HOSPITAL.—House Surgeon. Salary £100 per annum, with board, lodging, and washing in the Hospital. (Apply to the Secretary, 13, Hammet-street, Taunton.)

WALSALL AMALGAMATED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Resident Medical Officer. Salary £200 per annum, with unfurnished residence. All drugs, cab and tram fares paid for by the Association. (Apply to the Secretary, 61, William-street, Walsall.)

WREXHAM INFIRMARY AND DISPENSARY.—House Surgeon. Salary £80 per annum, with furnished rooms, board, gas, coal, and attendance.

Births, Marriages, and Deaths.

BIRTHS.

FOX.—On Aug. 6th, at Haylake, Birkenhead, the wife of L. Webster Fox, M.D., of Philadelphia, U.S.A., of a daughter.

GROSS.—On Aug. 10th, at East Dulwich Grove, S.E., the wife of Charles Gross, M.D. & M.S. Lond., F.R.C.S. Eng., of a son.

MACSWINEY.—On Aug. 3rd, at Thanet, Rock Ferry, Cheshire, the wife of Surgeon-Major E. V. Macswiney, M.D., Medical Staff (R.P.), of a son.

MUIR.—On Aug. 5th, at Ladbroke-grove, Notting-hill, W., the wife of J. C. Pollock Muir, L.R.C.P. & S. Edin., of a daughter.

WARNER.—On Aug. 10th, at Rydal, Woodford-green, Essex, the wife of Percy Warner, L.R.C.P., M.R.C.S., of a son.

MARRIAGES.

BARRET—COLIBERT.—On Aug. 9th, at St. James's, West Hampstead, Edward Ernest Barret, M.D., M.R.C.S., of Belsize-road, N.W., son of Edward Louis Barret, B.Sc., to Eugenie Amelia Sarah, younger daughter of E. Colibert, Esq.

COATES—POWNALL.—On Aug. 6th, at St. James's Church, Paddington, George Coates, Esq., M.D., Brechin-place, S.W., to Constance Emily Pownall, youngest daughter of the late Archdeacon of Leicester and Rector of South Kilworth.

DONNET—WHITEHOUSE.—On Aug. 5th, at Irvington-on-Hudson, James John Conway Donnet, Surgeon, Army Medical Staff, to Mary Elizabeth, only daughter of J. H. Whitehouse, Esq., of The Larches, Irvington-on-Hudson, New York.

DYMOTT—RICHARDSON.—On Aug. 9th, at St. James's, Hatcham, Donald F. Dymott, M.B., Surgeon I.M.S., Madras, son of G. Dymott, late H.M. Customs, to Maud Arabella, only daughter of John Richardson, Traffic Superintendent L. B. and S. C. Railway.

EDGE—RUSKELL.—On Aug. 6th, at Kilbride Church, John Dallas Edge, Surgeon-Major, Medical Staff, to Janie, daughter of John Ruskell, Esq., of Ballyrichard, Arklow.

EDYS—ROGERS.—On July 10th, at the Cathedral, Lahore, Punjab, India, John Simpson Edys, Army Medical Staff, M.R.C.S. and L.R.C.P., elder son of the late Capt. Joseph Edys, C.B., R.N., to Mabel Henrietta Gibbs, only daughter of the late James Gloucester Rogers, Esq., of Wiltshire.

LAMBERT—MURRAY.—On Aug. 6th, at the Congregational Church, Redhill, Frederick Samuel Lambert, L.R.C.P. Lond., M.R.C.S., of Lincoln, to Martha, fourth daughter of the late George Murray, Esq., of Oaklands, Earlswood, Surrey.

SHUTE—WILKINSON.—On Aug. 6th, at Holy Trinity Church, Shaftesbury, by the Rev. F. Ehlvers, George Sidney Shute, M.D., to Mary Scott, second daughter of Adam Wilkinson, M.D., F.R.C.S., of Shaftesbury.

THOMSON—GRAHAM.—On the 6th inst., at St. Mary's, Sledmere, Yorkshire, Douglas Lawson Thomson, L.R.C.P., L.R.C.S., younger son of the late Dr. George Lawson Thomson, of Woolton-hill, Newbury, to Margaret Scott, only daughter of the late Symon Dickson Graham, Esq.

WALTERS—SYKES.—On Aug. 13th, at the Free Christian Church, Croydon, Frederick Rufenacht Walters, M.D. Lond., M.R.C.P., F.R.C.S., of 20, Finsbury-circus, to Lilian, eldest daughter of the late Henry Sykes and of Mrs. Sykes, of Southbridge Lodge, Croydon.

DEATHS.

ATKINSON.—On Aug. 6th, at Erchfont Manor, Devizes, John Atkinson, J.P. for the county of Wilts, late Surgeon-Major 5th Lancers, aged 56.

CLARK.—On Aug. 7th, at his residence, St. James's-street, Newcastle-on-Tyne, George Noble Clark, L.R.C.P. Edin., aged 85.

KEITH.—On Aug. 8th, at Currie, Edinburgh, George S. Keith, M.D. Edin., F.R.C.S., aged 69.

KYLE.—On Aug. 10th, at Measham, Derbyshire, Kathleen Margaret, the beloved daughter of T. W. Kyle, M.D., aged four years.

LOVE.—On Aug. 6th, at his residence, George-street, Wolverhampton, John Henry Love, M.R.C.S., aged 55.

PENFOLD.—On Dec. 23rd, 1889, at Sandhurst, Victoria, Mary Louisa, the dearly loved wife of O. Penfold, M.R.C.S. & L.S.A., aged 27.

WOOD.—On Aug. 2nd, at Royal-terrace, Weymouth, John Elliott Wood, M.R.C.S. & L.S.A., aged 65.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Aug. 14th, 1890.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Aug. 8	30·17	N.E.	59	54	84	63	54	..	Cloudy
,, 9	30·04	E.	60	58	91	70	57	..	Overcast
,, 10	29·81	E.	65	64	109	76	60	·27	Raining
,, 11	29·71	W.	64	62	118	76	60	·30	Cloudy
,, 12	29·78	S.W.	64	62	101	71	62	·01	Cloudy
,, 13	29·81	N.E.	58	55	117	72	55	..	Bright
,, 14	29·78	S.W.	61	58	105	69	55	..	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

MONOPOLY OF HOSPITAL APPOINTMENTS.

M.D. writes, in reference to Mr. Stewart's letter in THE LANCET of July 26th, that it would have been interesting to know the method he pursued in comparing the examinations for the diplomas of the London and Edinburgh Colleges of Surgeons, especially with regard to the "practical part of the examination." Speaking from memory, says our correspondent, there was very little, if any, examination for the Edinburgh diploma in 1880, when Mr. Stewart became a member. No doubt many Edinburgh members were quite equal to London members in every way, but there cannot be any disputing the fact that a considerable number of men educated in England have taken the Scotch diploma. But whatever the standing of the two diplomas is relatively as regards severity of examination, the standing of the diplomates is very different: a Member of the London College is not allowed to dispense or to be engaged in trade, but a Member of the Edinburgh College can keep a chemist's shop or run a penny club. Until the by-laws of the latter College are altered, he hopes to see none of its diplomates, however well fitted in other respects, on the honorary staff of any hospital on this side of the border.

M.B.—The appointments to Her Majesty's Prisons are in the hands of Sir Edmund Du Cane, to whom application should be directed at the Home Office.

Mr. Permewan (*Redruth*).—Our remarks were based upon a newspaper cutting, which has been destroyed.

G.—The record will be found in THE LANCET of Nov. 20th, 1886, p. 992.

THE ROTATORY STETHOSCOPE.

To the Editors of THE LANCET.

SIRS,—Since submitting to your notice the rotatory chest piece, further experience has suggested several improvements in the mechanism and shape of the parts connected with it. I would especially mention that the possibility of wear at the hinge-joint has been taken into consideration, and the length of the chest piece, including the globular portion, has been reduced to seven-eighths of an inch. All the details have been carefully carried out by the makers (Messrs. Maw, Son, and Thompson). The auscultator will find there are many advantages attached to this particular form, not only adding to his own ease and comfort, but to those of the person under examination, as it can be utilised in such cases where it would be painful, dangerous, or inconvenient for a patient to be moved in order to use the fixed chest piece. It will be noticed, too, that when the piece is rotated in towards the crossbar, it becomes more portable and less liable to injury.

I am, Sirs, yours faithfully,

Bournemouth, August 11th, 1890. F. W. CORY.

MEDICAL PUFFING BY THE LAY PRESS.

THE following two slips are forwarded to us as from the same number of a local paper. It is strange how such accidents should be reported in the papers with the name and address of one practitioner, and he a Licentiate of the College of Physicians of London.

"ACCIDENT TO A YOUNG LADY.—Miss Marie de Carteret, daughter of Major de Carteret, of Wandsworth, fell down the stairs a few days since, and, striking her head violently on the hall floor, fractured her skull. We are glad to learn that the unfortunate young lady, who is under the care of Dr. F. Taylor Simson, of 110, Lavender-hill, is making a most rapid recovery."

"ACCIDENT.—Mrs. Tyas, of 105, Wichersley-road, fell down her steps and fractured her right arm last Saturday. Dr. F. Taylor Simson, of Lavender-hill, has charge of the case, which is progressing satisfactorily."

A.—Our correspondent has been treated with scant politeness. Summoned to the case without explanation and dismissed without courtesy, it would be hard to bind him to the high principles of medical etiquette. He can legally claim the fee. Yet, even so, we advise him to act the neighbour's part. B may possibly be acting under some want of information or misapprehension; but he owes a quick explanation to A, and the offer of the fee.

Perplexed.—The practitioner is the best judge of such a question; so much depends on the circumstances of the patient, and his rate of charging for ordinary services.

Dr. J. Willer (Colchester).—In an early number.

MICROSCOPICAL ADJUSTMENTS.

To the Editors of THE LANCET.

SIRS,—Some time ago I sent an article to the *Medical Times*, suggesting that in all probability a good fine adjustment for the microscope could be made by attaching a nose piece with a screw to the main tube—somewhat on the principle of the adjustable objectives. Since then I noticed a statement in the *Microscope* by an amateur that Mr. Tolles of Boston, an American optician of celebrity, used a nose piece with revolving collar as a fine adjustment. I never had the good fortune to see his microscope, and of course cannot speak of the merits of the fine adjustment; but, *a priori*, I am inclined to think that with good workmanship it ought to be steady and accurate, and therefore reliable. Certainly it could not be deranged by the coarse adjustment, and it could be easily graduated so that any common microscopist could quickly learn the movement necessary for each ocular and objective. It is no doubt open to the objection attached to any kind of adjustment that acts on the length of the compound tube (ocular, tube and draw-tube, and objective), for many purposes a small one, but one readily obviated by another adjustment on the same or screw principle—namely, by screwing the main tube in a threaded nut or nuts on the arm.

A principle when known is very easily stated, but the practical application is an altogether different affair. It requires skill, time, attention, and trial to work out the details and make a mechanism practically useful. Whatever may be said of amateurs and other professions than medicine, I think I may safely state there is no medical practitioner or professor of medicine, whether practitioner or not, who has not at some period of his career given some attention to the use of the microscope, and of course is more or less interested in its construction.

I am, Sirs, faithfully yours,

August, 1890. CHARLES DAVID DOIG, L.R.C.S.

"THE BRITISH MEDICAL ASSOCIATION MEETING AND NEWSPAPER GOSSIP."

To the Editors of THE LANCET.

SIR,—I exceedingly regret that such a paragraph should have been published as the one noticed in THE LANCET of this week. I need scarcely say that I had no knowledge whatever that such a reference to myself would be made, and my first acquaintance with it has been through your own columns. I am, Sirs, yours truly,

Birmingham, Aug. 13th, 1890. JOHN W. TAYLOR.

*** We publish with much pleasure our correspondent's disclaimer.—ED. L.

W. H. writes: "It has seemed to me that antipyrin has a decidedly sedative effect on the sexual function, especially in the male sex. It would be interesting to know if the same effect has been noted by others, as it might prove of great use if the case is really so."

Mr. Percy Pope.—The article is marked for insertion.

DR. C—— FUND.

MR. P. S. HUTCHINSON wishes to acknowledge the following donations in aid of the above fund:—Mr. Knapton (Southport), £2 2s.; Mr. Bayley Owen (Hyde-park), £2 2s.

Bullion.—St. John Ambulance Association, St. John's-gate, Clerkenwell, or the office of the Metropolitan Asylums Board, 37, Norfolk-street, Strand, according as the desire is for purchase or temporary use.

Mr. R. A. Hodd.—The person named is not a registered medical practitioner, and we have no acquaintance with his wares.

Mr. Manton.—Next week.

PROF. VON BERGMANN'S "MENU MONOLOGUE."

THE distinguished Berlin surgeon who presided at the great banquet given to 900 of his professional brethren of all nationalities took care that no element should be wanting to its success; and, with that sense of fun so characteristic of him, he devised a menu (*Speisenkarte*) of the most humorous description, the main feature of which was a "monolog" in Latin, setting forth the delights enjoyed at the wassail board by a holiday-making surgeon, who forgets every professional precept and all professional practice in presence of the dainties and delicacies, solid and liquid, profusely spread before him. The poem is a parody (gloriously defiant of metre and quantity, though sound enough in the concords) of Horace's world-famous Epode. A few of the opening distichs may be given in von Bergmann's Latinity, with a rough-and-ready translation subjoined :—

Beatus ille qui procul chirurgicis,
Securus inter epulas,
Hilariter maxillis exercet suis
Quae mensa praebet munera :
Non minus fascinatus sympho-
Jocose blandientibus, [nicis,
Quam thyrso Bacchi raptus pam-
Solutus omnino opere. [pinifero,
Neque excitatur ost-eogenesibus,
Nec jam resecto stomacho,
Neque intestina abhorret intus sus-
Rectique vitat tenebras [cepta ;

Et prostatam jam minus naviga-
Et lapides Sibiricos. [bilem
Peritonaei despicit tubercula
Ejusque vel hydropici.
Duobus intestini foraminibus
Satis contentus et supra.
Asepseos nunc immemor, sive am-
Seu resecans volantia. [putans

At jurisjam testudinis clari gustat
Nonnulla cochlearia
Vinumve promit dolio dulcissimum,
Hispanicum, Astae regine, &c.

How blest the surgeon who, remote from care,
Safe-seated at our board,
Plies his masseters on the toothsome fare
The thaliarch does afford.

Nor ravished less with the concerted strings
Discoursing music fine,
His spirit soars on care-dispelling wings
Sustained by choicest wine.

On him all bone-diseases waste their charm ;
Resected stomachs cloy :
"Intus-susception" 's a forgotten harm,
Or changed into a joy !

"Innavigable prostate" he ignores,
And calcular mishaps ;
No dropsy to its well-head he explores—
Another brew he taps !

If clear his alimental tract, he throws
All leechcraft to the winds ;
With knife and fork defies dyspeptic woes,
And "laws of health" rescinds.

The "cochleare magnum" thro' his lips
The turtle clear doth pass,
The vintage dry of Spain he smugly sips,
Or drains of punch a glass.

And so, on salmon or on trout he feeds,
Or fowl inlaid with ham,
Till Gorgonzola stills his gastric needs
And cognac fine—a dram !

* * * * *

And thus the master surgeon Rubio,
A gourmand fain to be,
Intrepid thro' the Speisenkart' doth go
At Berlin—on the Spree !

Three years hence at Rome, amid scenes hallowed by Horace himself, the International Medical Congress may be welcomed in similar fashion from the pen of no less a Latinist than Dr. Guido Baccelli.

F.—Our correspondent should consult his medical attendant. We do not prescribe.

THE MODERN BARBER-SURGEON.

To the Editors of THE LANCET.

SIRS,—Under the heading of "Manicure and Chiropody," a well-known West-end hairdresser is sending out advertisements which recall the times of the old barber-surgeons. After a statement of the various branches of the establishment and the charges for treatment for one or more visits (retail or wholesale) comes the announcement—"Ingrown nails, bunions, and more difficult operations according to time." From this we might imagine that there is a surgeon possessing full qualifications kept on the premises, who not only is willing to cut your corns, but also to amputate or perform any other operation if he considers it necessary, and who will be considerate enough to charge according to the time taken in doing the operation. It does not say whether any anæsthetic is given should the patient request it. I cannot believe that there is any qualified man so forgetful of his professional respect as to lend himself to this; and it is hard to imagine one able to pay the charges of the establishment so devoid of the instinct of self-preservation as to submit to a process of treatment which in the hands of one other than a surgeon might lead to permanent lameness, or even death, should things not proceed in a satisfactory manner after the completion of the operation. Is there no protection against this risk and dangerous assumption of the responsibilities of the profession?—I am, Sirs, yours truly,

August, 1890. F.R.C.S.

MEDICAL ADVERTISING IN SYDNEY.

IT is sad to see medical advertising in the worst style of the unmentionable quacks adopted by a medical man who can attach M.R.C.S. and L.S.A. to his name. This is the case with an advertisement sent us, and a handbill, in which diseases of the reproductive organs and of the nervous system figure largely, together with the special study given to them by the advertiser—"Dr. Perry" by name. Have the practitioners of Sydney no power of denouncing such conduct? They should at least forward the advertisement to his College, and to the Medical Board of New South Wales.

Astonished.—We think the charge a very reasonable one for such a journey. It is not a question of mere distance, but of derangement of work, sleep, &c. Clergymen are not judges of such mundane questions, and the estimate given is absurd.

Mr. R. T. Freeman is thanked for his communication.

W. H.—We are unable to assist our correspondent.

THE DISCUSSION ON HYPNOTISM AT BIRMINGHAM.

To the Editors of THE LANCET.

SIRS,—It was with deep regret that professional appointments, which could not be postponed, prevented me from being present at the adjourned discussion on hypnotism at the British Medical Association (Psychology Section) at Birmingham. As I was thereby deprived of the opportunity of replying on the whole discussion, I have to refer your readers to my paper, which will shortly be published, for an accurate statement of my views on this *quæstio vexata*.

I am, Sirs, your obedient servant,

Bournemouth, August 9th, 1890. NORMAN KERR.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Butlin, London; Dr. Boobbyer, Nottingham; Dr. Hime, Bradford; Dr. Pavy, London; Mr. Brudenell Carter, London; Dr. W. B. Ransom, Nottingham; Dr. Goldmann, Berlin; Dr. Saundby, Birmingham; Sir R. N. Howard, Weymouth; Dr. Michaelis, Berlin; Dr. M. L. King, New York; Dr. Griffiths, London; Dr. Neale, London; Dr. Norman Kerr, Bournemouth; Mr. A. Duke, Dublin; Mr. Cavell, Fleet; Dr. Gordon Laing; Mr. B. S. Ringer, Amoy; Mr. W. K. Hughes, London; Dr. J. Chisolm, Baltimore; Dr. E. Borck, St. Louis, Mo.; Mr. Bryars, West Hartlepool; Mr. J. W. Taylor, Birmingham; Mr. L. Crane, Trinidad; Mr. Permewan, Redruth; Mr. Manton, Sheffield; Messrs. Blondeau et Cie.; Dr. Dolan; Dr. Creighton; Mr. W. Keen; Messrs. Drysdale and Co., Montreal; Mr. Buchan, Glasgow; Messrs. Otis, Clapp, and Son, Providence, R.I.; Mr. G. S. Johnson, London; Dr. Peart, North Shields; Mr. F. W. Coxy, Bournemouth; Messrs. William Wood and Co., New York; Mr. W. W. Green, London; Messrs. G. Hewlett and Son, London; Mr. W. J. Cant, Lincoln; Messrs. White, Druce, and Brown, London; Mr. Craven, Kendal; Miss F. T. Young; Dr. Swift Walker, Hanley; Mr. Jas. Wallace, Belfast; Messrs. Reynolds and Branson, Leeds; Mr. H. H. Taylor; Messrs. Longmans, Green, and Co., London; Mr. C. F. Williams, Horley; Messrs. Reade Bros. and Co., Wolverhampton; Mr. Trimmer, Forest-gate; Mr. Godber, East Finchley; Mr. Searle, Exeter; Mr. C. D. Doig; Messrs. Vogt and Co., London; Mr. T. F. Wood, Wilmington, N.C.; Mr. Tyte, Minchinhampton; Mr. Coole, Horsham; Mr. Maylar, U.S.A.; Mr. Gurner, London; Dr. Hall, Walsall; Mr. Coryn, Portscathe; Dr. Gottsmann, Wurzburg; Mr. Dunn, Yorks; Mr. Bury, Wrexham; Mr. Prichard, Taunton; Messrs. Stern, London; Mr. Miles, Devon; Mr. Herbert, Nottingham; Mr. Turner, Finsbury-park; Mr. S. C. Fisher, Whitechapel; Mr. Symons, Dumfries; Mr. Bayley, London; Mr. Warman, Ramsgate; Mr. Banbury, Dursley; Mr. Lee, Dewsbury; Dr. Spence, Lichfield; Mr. A. A. Mitchell, London; Dr. L. Bernstein, Lismore, Australia; Mr. Egan, Kilkenny; Mr. Bennett, Liverpool; Mr. Sells, London; Mr. Cocking, Sheffield; Mr. Oldham, Ryde; Mr. Maitland, Maida-hill; Messrs. Hargreaves, Preston; Dr. Dalston, Westmoreland; Mr. Stenhouse, Glasgow; Dr. Coghill, Birmingham; Mr. Vail, Kilmarnock; Mr. Whittingham, Manchester; Mr. McLean, Walthamstow; Dr. Tiplady, Perthshire; Dr. Hunter, Edinburgh; Messrs. Lee and Martin, Birmingham; Mr. White, Guildford; Messrs. Robertson and Scott, Edinburgh; Mr. Baroody, Beyroot; Messrs. W. H. Smith and Son, Manchester; Mr. Harper, Portsmouth; Messrs. Street and Co.; Mr. Alexander, London; Mr. Hornibrook, London; Mr. Allen, Upton-park; Mr. Warner, Sheffield; Mr. Arnison, Penrith; Mr. Hunt, Manchester; Mr. Oliver, Pendlebury; H. W. G.; R. V., University College, Bristol; Astonished; A.; Cuneiform, London; Pulsometer Engineering Co., London; Omega, London; Z., London; Hospital for Sick Children, Manchester; Royal Infirmary, Manchester; Sanitas Co., London; Tadro, London; G.; Perplexed; Invalid Transport Corps, London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Tully, Hastings; Mr. Greenleaves, Bournemouth; Messrs. Rowntree and Co., York; Mr. Hyde, Buxton; Mr. Dunn, Yorks; Messrs. Howards

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NEWSPAPERS.—*Detroit Free Press, The Ann Arbor Argus (Michigan), Irish Times, Western Daily Mercury, Paisley Gazette, Eastern Daily Press, Herald (Montreal), Dundee Advertiser, Manchester Courier, Bradford Chronicle, Liverpool Courier, New York Herald (London), City Press, Scotsman, Local Government Chronicle, Yorkshire Herald, Leicester Daily Post, Sunday Times, Sussex Daily News, Hull Express, Builder, Consett Guardian, Leeds Mercury, Weekly Free Press and Aberdeen Herald, Admiralty and Horse Guards Gazette, Hertfordshire Mercury, Windsor and Eton Gazette, Architect, Bristol Mercury, West Middlesex Standard, Kilkenny Journal, Broad Arrow, Sheffield Daily Telegraph, Metropolitan, Reading Mercury, Spectator, Evening News and Post, Chemist and Druggist, Durham County Advertiser, Windsor and Eton Express, Surrey Advertiser, Banner, Law Journal, Huddersfield Daily Chronicle, Saturday Review, Star, Pharmaceutical Journal, Guy's Hospital Gazette, Mining Journal, Hereford Journal, Lewisham Gazette, Rock, Public Opinion, English Mechanic, Health, Aberyavenny Chronicle, West Middlesex Advertiser, Whitehaven News, Southampton Times, Bath Argus, Barrow News, Overland Mail, Worcestershire Echo, Oldham Standard, Pioneer (Allahabad), Jackson's Oxford Journal, The Tocsin, The Schoolmaster, Mohammadan Observer, &c.*, have been received.

Medical Diary for the ensuing Week.

Monday, August 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

ROYAL COLLEGE OF PHYSICIANS.—4 P.M. Dr. Saundby: The Morbid Anatomy of Diabetes Mellitus. (Bradshawe Lecture.)

Tuesday, August 19.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

Wednesday, August 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M Surgical Consultations, Thursday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, August 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, August 22.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, August 23.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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